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Scientific Papers

PROBLEMS OF PRACTICE[1]

W. EDWARD GALLIE, M.D.[2]

Your kind words of introduction remind me of the feeling I have always had in Baltimore, that far from being a stranger in a strange land, I am among friends. Not only have I grown up with many of you in our art and science but I am ever conscious that in many surprising ways your traditions are our traditions. Indeed except for some considerations of geography and of political institutions, we are one people.

You have probably noticed that in the past few weeks a great and historical political event has occurred in Canada. Newfoundland has at last entered Confederation and has become our tenth province. This must recall to you that the founder of the first settlement on the south-east corner of Newfoundland, the peninsula of Avilon, was the same man who brought the first English settlers to Maryland and gave his name to this city. George Calvert, Lord Baltimore, received charters for both these enterprises from King Charles the First, early in the 17th century, over three hundred years ago.

But of far greater interest to me is the recollection of the contacts I had with some of the men who have made Maryland and American Medicine great. I met Sir William Osler only once, on the occasion when he delivered his famous address to the medical students in Toronto on the "Master Word in Medicine." But my contacts with him go far beyond that for it happens that I was born in Barrie, Ontario, and received my education in the Barrie Grammar School where Osler had gone to school thirty years before. I actually knew several men who were schoolboys with him at that time and took part in the pranks that have been so well described by Harvey Cushing. The Osler tradition there is very strong.

Sixty years ago to-night Professor Osler was the guest speaker of the Medical and Chirurgical Faculty of Maryland. His subject was "Licence to Practice." In his address he attacked the existing system of Medical education and the

[1] I. Ridgeway Trimble Lectureship presented at the Sesquicentennial Celebration of the Medical and Chirurgical Faculty, Lyric Theater, Baltimore, Maryland, Monday, April 25, 1949.

[2] Dean, Faculty of Medicine, University of Toronto, Toronto, Canada.

absence of safeguards for the protection of the public from quacks, charlatans and shockingly untrained doctors. He asked "Is it to be wondered, considering this shocking laxity that there is a widespread distrust in the public of professional education?"

Reading this address of sixty years ago has set me thinking of what has happened in medical practice in the intervening years and where we stand to-day in our relationship with the public. At this point one is tempted, particularly in the presence of an audience composed largely of other than the medical profession, to review the glorious record of achievement of the last half century. Even in my own time the forward march of the basic medical sciences and of medicine, surgery, and all the specialties has been almost unbelievable. This era of glorious advancement which has seen the establishment of our mastery over typhoid fever, diphtheria, pernicious anaemia and diabetes; over surgical infections and the hidden diseases of the abdomen, the thorax and the brain, has occurred in the stimulating atmosphere of free enterprise and has been brought about by the unfettered enthusiasm of crowds of young people like Osler and Cushing here and like Banting and Best in my own country.

And as I think of this glorious era I cannot help wondering if it could have happened under state medicine. Would the fires of research have glowed as brilliantly under bureaucrat direction and political control as they have in the immediate past? Could management by the civil service have been as successful in attracting these bright young minds to the study and solution of the problems of health and disease? My experience with politics and the civil service makes me doubt it and makes me think that we should avoid at all cost the introduction of socialistic changes which could so easily kill the goose that laid the golden egg.

This craze for socialized medicine is part and parcel of the general demand for social security. It is not a criticism of the quality of the service we are giving, but rather of the cost of it. And when one considers the colossal bills that follow an ordinary illness such as pneumonia or appendicitis, one cannot help sympathizing with the low income citizen when he looks about to see if he cannot get somebody else to pay for it.

The remedy is not too clear at the present time but in my opinion it should centre on this problem of cost. Some scheme must be discovered which will lessen the load of the ten to twenty dollars a day charge of the hospital and the ten to twenty dollars cost of the nurses.

But in searching for means of reducing the cost of illness what folly it would be to destroy the goodwill of the doctors and to make them sorry they had ever come into the profession. The spectacle of what is going on in England and New Zealand with their schemes of state medicine, is quite enough to drive bright and clever young men into other fields of endeavour. At any rate there will be no sons of doctors entering medical school if state medicine comes. I would venture to predict that with the advent of socialized medicine, as it is advocated by the socialist and communist parties, this golden age of medical discovery will come to a close and we shall enter a period when progress in the study of health and disease will bog down to the speed of the civil service. The idea that medical research can be kept alive by government grants is just silly if it turns out, as I think it will, that the bright boys no longer want to be doctors and will no longer enter the schools.

The appalling cost of illness is largely due to the rise of hospital rates and to the cost of nursing care. Fifty years ago when we took sick we went to bed at home and the doctor came to see us there. To be sent to hospital seemed like a death sentence. Now, however, largely due to our advocacy of the virtues of hospitals and to the development of the "Blue Cross" and other insurance plans, everybody wants to go to the hospital on the least provocation. The result is an outburst of hospital building at such fabulous prices that the daily rates can do nothing but

rise. How we are ever going to get nurses enough to staff these new hospitals is beyond me, for I am convinced that with the rising demand of industry, of public health, of aeroplanes and of the public and high schools, for trained nurses, the chances of getting nurses enough to take care of the sick are steadily growing less. Indeed, I feel sure that the day of a plethora of nurses is over and that it is time we were thinking of how we can do without them.

First, let us consider the hospitals. Do we really need the enormous increase of hospital beds that is now being demanded? How many are being occupied by patients who have been sent in for complete laboratory investigation and for observation and who really do not need to sleep in the hospital at all? It seems to me that a great many are in this class. Would it not be preferable, instead of building hospitals, to build clinics where a patient could undergo a complete investigation and then return to his own home? This would speed up the programme, reduce the need for nurses and cut down the expense. It is certainly worth thinking about before calling in the architects.

The problem of the nurses is occupying the attention of hospital administrators and the nursing schools all over the world. The other day I saw a big sign in the Strand in London, England, announcing that the governments of Australia, New Zealand, and South Africa would welcome applications from young British girls to go out to those Dominions at government expense and on specified salaries to train in hospitals as nurses. The shortage, indeed, is universal.

The reasons given are varied but they all seem to boil down to the fact that to many, nursing the sick has lost its charm. In earlier days a high proportion of the girls entered training schools in the spirit of Saint Anne, gladly devoting their lives to the service of the sick and accepting as their reward the gratitude of their patients and the hope of happiness hereafter. Gradually, however nursing has changed to a profession, an ill paid one at that, and one that requires high standards of preliminary education and years of special training. In the presence of ever increasing opportunities for young women in business, in pedagogy and in countless other fields, with limited hours of work, week ends off and higher pay, it is no wonder that volunteers are lacking. What the solution is I do not know but I suspect that it lies along the way of learning to get along with fewer trained nurses, who will occupy the posts of greater responsibility with pay and living conditions such as to attract bright young women, and filling in the vacancies with a lower grade of personnel. However, this is a problem not for the doctors but rather for the hospital administrators and particularly for the nurses themselves. No solution will be satisfactory that does not come from them and carry their staunch support. My only purpose in mentioning it at all is to emphasize what many of us think, that the shortage of nurses is permanent and urgently calls for thought.

Returning to a consideration of the changes in medical education and in practice since Osler delivered this lecture sixty years ago one cannot fail to be impressed with the enormous progress that has been made. What the great physician advocated that night, namely a reformation in clinical teaching and the setting up of high standards for hospitals and medical schools and for licensure to practice, have all been brought about, and, mark you, have been brought about by the doctors themselves. The idea that this kind of reform could have been brought about by any government bureaucracy is the sheerest nonsense.

These sixty years have seen the rise of the internist, the surgeon, and the various kinds of specialists. It is but natural that with the enormous broadening of the field of medicine, practitioners have been forced to concentrate on narrowing portions of that field in order to maintain a standard of excellence. There are many of us, however, who feel that this swing to specialism has gone far enough and that a little more attention should be paid to the general practi-

tioner. Indeed, for some reason or another, the public seems to have lost a great deal of its former respect for the old style family doctor, and rushes off at once to whatever specialist seems to be most suitable to their particular complaints. It is amazing how often nowadays patients come in who state they have no family doctor and who are quite surprised when I decline to see them except at a doctor's request.

This is most unfortunate for I am convinced it often leads to poorer instead of better service. The ideal family doctor is competent to diagnose all but the most uncommon ailments and he is familiar with the treatment required. If he really is the family doctor he is also a trusted friend who can be depended upon to call the proper consultant if another opinion is needed and to select the most suitable specialist if special treatment is required. Above all, he knows his patients far better than any chance consultant ever can and being their trusted counsellor and friend he has their interests close to his heart. When I get sick I want my old family doctor; none of your specialists for me.

But just as Sir William advocated an increase of the medical course from two to four years, with emphasis on basic sciences and clinical study at the bedside so I have to recommend, sixty years later, another extension of the programme of training. It seems to me that with all the advances that have been made in medicine, pediatrics, obstetrics and minor surgery it is impossible for a student, no matter how diligent he may be to get a practical grip of his subject in four undergraduate years. Almost all this time he has had his nose on the grindstone with lectures, clinics and laboratories and is awake at all hours of the night preparing for examinations. At no time is he given responsibility for sick patients or given the opportunity actually to be the doctor. The result is that while at graduation he has had a better basic and theoretical training than ever given before, yet he has not had sufficient apprenticeship to fit him for actual practice.

To get over this defect in his education he needs a general rotating internship. This I believe should be compulsory and required by the laws of the state or province, for licensure. This is actually the law in some places but it is by no means universal. Some of the leading hospitals associated with medical schools do not have a rotating internship at all. It seems to me that an adequate preparation for general practice requires an internship which includes six months medicine, six months obstetrics and pediatrics and six months minor and emergency surgery, including fractures. If to this were added six months or a year of training with a busy practitioner the course would be complete. Such a plan, of course, would require that hospitals paid the interns a sufficient honorarium to make them independent.

But while making an adequate internship compulsory for licensure would be a great advance, it would fall far short of the ideal unless the medical school takes a much more active interest in the welfare of the intern than it has done in the past. It is notorious that in many hospitals the interns are simply servants who carry out routine work without any pedagogic supervision or spiritual stimulus whatsoever. Everybody must have observed how frequently the lean, alert, anxious medical student degenerates during his first six months as an intern. This comes from the too sudden release of the graduate from the discipline and supervision of school. What is needed is a more gradual transition from the rigours of medical school to the independence of practice. It calls indeed for a continuation of the curriculum of the school into the intern years, with sufficient clinics, discussion classes and practice demonstrations to make sure that the intern is getting the best out of his service. What I am suggesting, indeed, is that we cease to look on interns as servants of the hospital but rather regard them as postgraduate students whose quality as practitioners of medicine will depend largely on our skill as teachers. I am suggesting that we make it im-

possible for the intern to complete his training without having done, and accepted responsibility for all the things he must do in practice.

Of the rise of the specialist since sixty years ago, so much has been said that I need only touch on it. Indeed I know very little about it except as it applies to the surgeon. These sixty years, however, have seen an extraordinary change in his education and in his practice. At the beginning he was a general practitioner who had a special interest in operative work and had ultimately become proficient in some of the common procedures. Gradually, however the field became wider including the hitherto unexplored fields of the abdomen, the chest, the nervous system and the bones and joints, so that it became necessary for the budding surgeon to spend years in training before setting up in practice. To protect the public in this period of change the American College of Surgeons and the American Boards of Surgery in the United States, and the Royal College of Physicians and Surgeons in Canada have been set up to establish the standards of training that are necessary to efficient service. As yet these standards have not been made obligatory but the time is not far distant when they should be. Just as Osler pointed out the necessity for obligatory standards for the general practice of medicine I now urge that consideration be given to the limitation of major surgical practice to those who have been properly trained for it. The notion that a degree from a medical school and a license to practice granted by a State or provincial board is sufficient qualification for a man to engage in any kind of practice is nonsense and should be corrected as soon as possible. While it is obvious that to bring in restrictive legislation too suddenly would cause hardship and arouse so much resentment and resistance that the needed reform would be retarded yet I feel sure that if the problem is handled wisely both the public and the profession will agree to proposals that guarantee that the practitioners to whom are entrusted the lives and limbs of our patients have been adequately trained. Just as there are now minimum standards set for licensure for general practice so there should be minimum standards, such as those required by the Boards, for license to practice a specialty.

In these times when various forms of socialism are sweeping over the world it is particularly important that we should retain the confidence of the people. We have been and still are looked upon as an honourable profession, doing our daily work because we like to do it and concerned more with the service we give and the satisfaction we get out of it than with its pecuniary rewards. It is very essential, just now, however, when people are resenting the rising cost of medical care that we do not occupy a prominent place in the general clamor for higher pay. I really believe that the most useful service we could give to the public as well as ourselves would be to do everything possible to reduce those rising costs. The lavish use of expensive drugs, the multiplications of x-rays and the free use of physiotherapy make the bill that the patient must pay on leaving the hospital truly astronomical. Over and over again I have heard of low income people such as university professors who literally had to mortgage the house to pay for an illness. Now while the doctor's bill is a mere fraction of this cost, yet the patient is inclined to blame the doctor for it and to a certain extent he is right.

The other day a friend of mine, a professor of mineralogy, consulted his physician about some discomfort in the upper part of his abdomen. After taking the history the doctor decided that hospitalization was necessary in order that a complete investigation could be carried out. The patient entered hospital on a Friday night but by that time the physician had gone out of town for the week end and did not get back till Monday afternoon. He then ordered a gastro-intestinal series, a gall-bladder series, chest and spinal x-rays, an electrocardiogram and the whole list of blood and urine analyses with particular emphasis on liver function tests. He wanted to

make sure that nothing was overlooked. So all his investigation was completed and one by one the tests were reported negative. In the meantime the patient had completely recovered from his indigestion. He left his ward with a spring in his step and the light hearted feeling of one who has had a narrow escape from catastrophe. This lasted till he reached the wicket where he received his hospital bill. Then all the symptoms returned with threefold intensity. The fact that the doctor, being a fellow member of the faculty and a personal friend, didn't send him a bill, didn't seem to help.

I suggest, therefore, that we do not send anyone into a hospital not urgently needing to go, that we pause a moment before ordering a list of expensive clinical investigations that have no direct bearing on the case, and that we reserve the use of antibiotics and whole blood to patients who really need them.

It is particularly important in these changing political times that we do not leave ourselves open to the charge of commercialism. Of course we want to make a decent living and to have incomes that will enable us to live in social equality with those of a similar cultural status as our own. But we should also have the credit for the perfectly enormous amount of service that we render without any charge whatever and without a hope of financial reward. The public can hardly be made to believe that the staff appointments to our in-patient and out-patient services carry no salaries or honoraria. But much more spectacular than the day by day free contribution of the doctor to the general public welfare are the wonderful gifts to humanity that have been made by medical research.

The one that I know best is that in relation to diabetes, for once upon a time Sir Frederick Banting was my house surgeon and Charles Best was my student. When one realizes that there are nearly a million diabetics in the United States and Canada who are being kept alive and in good health by insulin, what a killing those two boys could have made if they had capitalized on their discovery. If for instance they had sold their process to the manufacturers with a royalty of one cent a day from each patient, that would have amounted to $3,000,000.00 a year. And that they did not do this was no mischance for I can assure you that I listened one night twenty-five years ago to a full discussion of the subject by the insulin committee of the University of Toronto, where with a complete realization that the discovery was a success and that the income that could be derived from it would be enormous, the discoverers in cold blood decided to live up to the traditions of our profession and to hand over their discovery to the world. This is something that is understood neither by capitalists nor communists but it is one of the glories of our profession that make us resent the suggestion that in the future we are to be pushed around by bureaucrats and civil servants. It is my firm conviction that if thirty years ago medicine had been socialized on one of the plans now being threatened, Frederick Banting and Charles Best would never have registered in a medical school and the diabetics would have been dying of coma as usual.

It is my pleasant duty to bring to you the greetings of the Canadian and Ontario Medical Associations. Just as you represent the doctors of Maryland and of the other United States, so our Canadian Associations speak with authority for the medical profession in Canada. Our association with you in times of peace, over the last hundred and twenty years, and in times of war, in the last thirty years, has done nothing but raise our admiration for you. The kindly way in which the Canadian doctor is received in the United States never fails to astonish us and to arouse our deep appreciation.

In these anxious times when there hangs over us the threat of atomic war and we figuratively scan the northern skies in search of enemy aircraft it may be comforting to you to know that here and there along the shores of the Arctic Ocean and of Hudson's Bay are increasing groups of Canadian airmen and radar experts.

This was brought home to me most forcibly when a well known surgical colleague, one of the senior medical officers of the Royal Canadian Air Force flew to Baffin Land to inspect the medical arrangements in that far Arctic post. It is just unbelievable.

One thing we Canadians are terribly keen about is that the proposed St. Lawrence waterways scheme may be proceeded with soon. By building canals to bypass the 75 miles of rapids in that great river we can open it to ocean navigation for an increased thousand miles and convert the ports of Cleveland, Toronto, Detroit, Chicago, Fort William and Duluth into ocean ports. Just as the completion of the Panama Canal made commerce originating in one ocean available to the other, so the St. Lawrence waterways will extend that commerce from the outside rim to the very centre. Strategically, too, its importance is enormous. While I know that New York, Boston, Philadelphia and perhaps Baltimore are not very keen about seeing some of their shipping proceeding up the St. Lawrence, yet in time of serious war, the more we are spread out and the less vulnerable we are to atomic bombs the better.

Just to guard against a possible feeling of disappointment among the more scientifically minded of my audience that I have said very little about practical surgery, I shall dwell lightly on a curious cult that has developed recently among the surgeons. From time to time I have held forth against the indiscriminate introduction of foreign bodies into the delicate human organism and have pointed out the evils that may result from this unscientific practice. Now, however, I would draw attention to a growing habit of dealing with certain injuries and diseases by cutting off the offending part and throwing it away. It would suggest that our faith in a Divine Providence has become so undermined that we have begun to look critically on what we have always been taught is the noblest work of God. The suggestion is that perhaps, after all, the hand of the potter does shake. The other day there came under my care a great professional hockey player who had fractured his patella. All my young colleagues told me that the newest and best treatment would be to remove the patella; simple, free from danger and effective. Now, of course, I knew all this and have seen results that would be quite good enough for the knees of those young doctors, but I had to remember that my patient was a great centre player and that one reason he was sent to me was that I also had been a hockey player and knew something about the kind of knees that centre players must have if they are to continue to play that great game. So I stuck to the old accepted plan of trying to restore the poor boy to the mould in which God made him.

The speed with which the "cut off and throw away" cult has developed is amazing. It used to be limited to feet and fingers and hands but now it includes patellas, ollecranons, clavicles, gall gladders, caecums, colons, stomachs and lungs and when the technique for each of these has been perfected we are calmly told that no ill effect from the loss of the part can be detected. The climax, as far as I am concerned, came not long ago when the neurosurgeon brought in a patient from whom he said he had removed one cerebral hemisphere. And sure enough, there was the hemisphere in a bottle. I asked the man how he felt about it and the mumbled reply didn't impress me. The surgeon assured me, however, that the patient had always talked like that and that the loss of half his brain had seemed to have no ill effect whatever.

Well I must not go too far in this discussion for fear I leave a wrong impression. I think it is well worth while, however, for the surgeon to pause when he feels the urge to cut off something coming over him, and consider that while it is interesting and often very important to know that man can get along without some of his parts, yet in the millions of years in which the process of evolution has been going on the chances are these parts have gotten used to one another and might not play the game quite so

well if some of them were missing. It might be well if these enthusiastic surgeons, before trying out these new fangled stunts on their patients, did as Banting and Best did when, before giving the new drug "insulin" to their patients, they tried it out on themselves.

The association of our tenth province, Newfoundland, with Maryland reminds me that the other day in London certain sentimental people gathered about the great equestrian statue in Whitehall to mourn the passing of the king who sent Lord Baltimore to America. It is a bright commentary on the character of the English people that there are some who every year, on January 30th, stand about this statue and drink a toast to the rightful king (over the water). The Lord only knows who the descendant of the Stuarts really is. Certainly the Jacobites do not. And while the toast is being drunk another crowd looks on with an amused yet sympathetic smile and then all move off together as loyal subjects of King George the Sixth. A great and interesting people, but to us on this side of the Atlantic, sometimes hard to understand. King Charles the First was not a wise king and he certainly was a most unlucky one but in his magnificent exhibition on the scaffold of Whitehall he made a glorious atonement. So when January 30th comes around, you in Maryland, so named in honour of his queen, who could not possibly drink to a king named George, may raise a glass with me, a descendant of Scottish Jacobites, to Charles Stuart, the founder of your country and to Mary his queen.

THE PROBLEM OF JAUNDICE IN GENERAL SURGERY[1]

HOWARD K. GRAY, M.D.[2]

A surgeon, when presented with a case of jaundice, wishes to know one thing: Is this a type of jaundice which can be relieved by surgical means? To make this decision, he must determine whether the jaundice is hemolytic, hepatocellular or obstructive in origin. In making the diagnosis the value of a complete and careful history and physical examination cannot be overemphasized, but also of great aid, and often the only means of confirming the diagnosis of the type of jaundice, are the laboratory tests of liver function.

Surgeons many times are prone to disregard the advantages of liver function tests which are available to them for aid in the diagnosis of jaundice. This disregard stems in general from two causes: first, the surgeon may have encountered cases in which the liver function tests were inconclusive or misleading in their results, and second, but perhaps the more important, he does not have faith in the tests because he does not understand clearly the principles involved nor the real purposes for which each test was developed. It is a common experience that one tends to be suspicious of something about which one is unfamiliar. Because of these reactions, this paper will attempt to describe simply and clearly, some of the more commonly used tests of liver function as aids in diagnosis. There have been developed many minor variations in the technic of performing these tests, and the details of their interpretations vary from laboratory to laboratory; these variations of thought and technic are beyond the scope and intent of this paper.

To our knowledge, there is no laboratory procedure which will test all the functions of the liver at one time. It is easy to see why this is so when one realizes that the liver is probably the most important single organ in maintaining the various factors of homeostasis within the body.

[1] John M. T. Finney Lecture—Annual Meeting, Medical and Chirurgical Faculty of the State of Maryland, April 26, 1949, Baltimore, Maryland.

[2] Division of Surgery, Mayo Clinic.

TABLE 1

Results of laboratory tests in various types of jaundice

PROCEDURE OR FEATURES	NORMAL	JAUNDICE, TYPE			
		HEPATOGENOUS	OBSTRUCTIVE		HEMOLYTIC
			Stone	Carcinoma	
Degree of jaundice	None	Variable	Variable	Deep and persistent	Variable
Evidence of hepatic functional disturbance	None	Early	Later and progressive	Later and progressive	None
Icterus index	4–6 units	Elevated	Elevated	Elevated	Elevated
Serum bilirubin (van den Bergh)	Negative direct; 0.6 mg. per 100 cc. indirect	Increased direct and indirect reaction	Increased direct reaction	Markedly increased direct reaction	Increased indirect reaction
Urobilinogen	Present in stool and urine	Present in stool and urine	Present or decreased in stool and urine	Absent in stool and urine	Present in stool and urine
Duodenal drainage, bile	Present	Present	Present or decreased	Absent	Present

PROCEDURE OR FEATURES	NORMAL	JAUNDICE, TYPE		
		Hepatogenous	Obstructive*	Hemolytic
Glucose tolerance	Normal curve	Increased response	Normal curve	Normal curve
Galactose tolerance	3 gm. or less in 5 hr.	Reduced tolerance, 3 gm. or more	Normal (early)	Normal
Albumin-globulin ratio	1.5:1 to 2.5:1	Reduced or inverted	Normal (early)	Normal
Takat-Ara	Negative	Positive	Negative	Negative
Cephalin-cholesterol flocculation	No Flocculation	Increased, grade 3 to 4	Normal (increased late)	Normal
Colloidal gold precipitation	Negative	Paretic type of curve	Negative	Negative
Thymol turbidity	0–4 units	Positive	Normal	Normal
Zinc sulfate turbidity	6–16 units	Positive	Normal	Normal
Prothrombin time	18–20 sec.	Prolonged; poor response to vitamin K	Prolonged; good response to vitamin K	Normal
Cholesterol, total	150–250 mg. per 100 cc.	Normal or decreased	Increased	Normal
Cholesterol esters	110–145 mg. per 100 cc.	Reduced	Increased	Normal
Dye of retention	None	Increased	Increased	None
Hippuric acid secretion	3 gm. or more in 4 hr.	Reduced, 2 gm. or less	Normal (early)	Normal
Serum alkaline phosphatase	4 units or less per 100 cc.	Moderately elevated	Increased	Normal
Serum amylase	Less than 320 units	Normal	Increased	Normal
Serum lipase	Less than 0.3 cc.	Normal	Increased	Normal

* Same results for obstructive jaundice due to stone and for that due to carcinoma.

It accomplishes this not only by its influence on the metabolism of carbohydrates, lipids, proteins, vitamins and bile, but also through many other functions too numerous and nebulous to mention. Because of this great diversity of activity, a liver function test is designed to test only one specific function of the liver, and its interpretation is of this specific activity and secondarily of its relationship to the other functions of the liver.

Any condition of the liver which will produce pathologic changes in one function of the liver will ultimately cause enough damage to the parenchyma of the liver to produce changes in other functions. The average length of time for this secondary damage to become manifest is from two to four weeks. Hence liver function tests are of greatest aid in the diagnosis of jaundice during the initial two weeks of the disease. After this time has elapsed, all the tests tend to give positive results to a varying degree, and hence the specificity of the various tests is lost as is their diagnostic value. For this reason, liver function tests for the diagnosis of jaundice should be performed as early in the course of the disease as possible.

A summary of the results of the different laboratory tests in various types of jaundice is given in table 1.

TESTS OF BILE EXCRETION

Perhaps the most frequently performed tests of liver function are those which determine the ability of the liver to excrete bile pigments which, when they are present in excess in the blood, produce clinical manifestation of jaundice. Tests of this function of the liver are the icterus index, determinations of serum bilirubin (van den Bergh), determination of fecal and urinary urobilinogen, and duodenal drainage.

Icterus Index.—The icterus index is a colorimetric test in which the color of the fasting xanthophyll-free and carotin-free serum which contains no hemolyzed erythrocytes is compared with a standard potassium dichromate solution. The results of the test are not directly proportional to the amount of bile present in the serum since the bilirubin present in crystalloid form gives a deeper color than does colloidal bilirubin; hence the results do not always agree with those of the van den Bergh test. The results are reported in units, each of which is roughly equivalent to 0.05 mg. of bilirubin per 100 cc. of serum. The normal icterus index is 4 to 6 units, but it may increase to 15 units before gross evidence of clinical jaundice appears. This test is a nonspecific test for jaundice, and it is increased in any condition which produces jaundice. Its main use is in following the variations in the degree of jaundice in a patient, since it is an easy simple test.

Quantitative Determination of Serum Bilirubin (Van den Bergh Test).—The quantitative serum bilirubin (van den Bergh) test is a colorimetric procedure which is much more specific than the icterus index. It is perhaps the most frequently used test in the diagnosis of jaundice. The bile present in the serum reacts with Ehrlich's diazo reagent (diazotized sulfanilic acid) to produce a reddish color. The time that it takes the color to develop and the depth of the color determine the type of the reaction and the amount of serum bilirubin. If the color develops within sixty seconds, the result is known as a "direct reaction." This indicates that the bilirubin is in a more soluble form as a result of having passed through, and having been excreted by, the liver cells. If the color develops in from sixty seconds to several hours, it is known as a "delayed reaction." In the second phase of this test, a solution of 50 per cent methyl alcohol is mixed with the serum and Ehrlich's reagent is added. This frees the protein-bound bilirubin which has not passed through the liver cells so it can react with Ehrlich's reagent to produce the reddish color. This is known as the "indirect reaction." Normal persons usually give a negative direct reaction for serum bilirubin, and an indirect reaction for serum bilirubin up to values of 0.6 mg. per 100 cc. In the obstructive type of jaundice it is mainly the direct-reacting bilirubin which is present, but if the obstruction persists, there will soon be varying degrees of damage to the liver cells so that there will also be an increase in the indirect-reacting serum bilirubin. The bilirubin in hemolytic jaundice produces an entirely indirect reaction, as it has not passed through the liver cells. In hepatocellular jaundice the bilirubin in the early stages is mainly indirect reacting, but as the disease progresses, it becomes both direct and indirect reacting.

Test for Urobilinogen.—Urobilinogen is formed

in the intestine by the action of the intestinal bacteria on bilirubin. The majority of the urobilinogen is excreted in the feces as urobilin, stercobilin and mesobiliviolin. A small portion of the urobilinogen is resorbed into the portal circulation from the intestine and it passes back to the liver where most of it is again excreted into the intestine (enterohepatic circulation). However, a small portion of it passes into the general circulation from which it is excreted by the kidney in the urine.

The test for urobilinogen, whether in the urine or the feces, again depends on the reddish color produced by bilirubin or its derivatives and Ehrlich's reagent (paradimethylaminobenzaldehyde). This color is compared with that of a standard solution. The urobilinogen in the feces is reported as milligrams per 100 gm. of stool or milligrams excreted per twenty-four hours. The normal amounts are 150 to 300 mg. per 100 gm. of feces or a daily output of 40 to 300 mg. of urobilinogen. The amount is decreased or absent in obstructive jaundice and it tends to be much lower, if not entirely absent, in obstructive jaundice due to neoplasm than in that due to stone. The amount of fecal urobilinogen is increased in hemolytic jaundice.

In the urine, the normal amount of urobilinogen is 4 mg. or less per twenty-four hours. It is absent in case of complete biliary obstruction, and it is increased in case of hepatocellular damage or hemolytic jaundice.

Duodenal Drainage.—Duodenal drainage is a valuable procedure. A Levine type of tube is passed so that the tip will rest in the duodenum. Fifty cubic centimeters of a 25 per cent solution of magnesium sulfate is instilled through the tube. Normally, the first bile is clear and thin as it comes from the common duct. This is followed by a much thicker and darker bile which apparently is from the gallbladder. The last bile to be obtained is again clear and thin and is considered to be that which has just been excreted by the liver. The bile, if obtained, indicates at least some degree of patency of the bile ducts, but it may be minimal in amount in cases of severe hepatocellular damage. The presence of cholesterol and calcium bilirubinate crystals is indicative of stones in the biliary system, and blood is indicative of tumor although it may result from trauma. Pus cells are found in cases of cholangitis, and the recognition of malignant cells in bile may be of practical value at some future time.

TESTS OF CARBOHYDRATE METABOLISM

Glucose Tolerance Test.—The glucose in the blood is maintained, in part, at near constant levels by the liver which converts glucose to glycogen, in which form it stores carbohydrates until the extrahepatic stores of glucose are decreased. Glycogen is then reconverted to glucose and is released into the general circulation.

The glucose content of the blood is determined by heating protein-free blood filtrate with an alkaline copper solution. The glucose reduces a portion of the copper to cuprous oxide which in turn reduces phosphomolybdic acid to phosphomolybdous acid which is blue in color. This color is compared with a standard, and the amount of glucose reported in milligrams per 100 cc. The glucose tolerance test is performed, after determining the fasting level of glucose in the blood, by giving the subject orally an amount of glucose calculated on the basis of body weight. The levels of glucose in the blood and urine are then determined at intervals of thirty minutes, one, two and three hours.

When there is damage to the liver cells, wide variations are noted in the levels of glucose in the blood in response to the glucose tolerance test. Following the administration of glucose, the level of this substance rises rapidly in the blood, but the curve differs from that of the diabetic in that it falls more quickly to fasting levels. The fasting level in the nondiabetic patient with hepatocellular disease is reached in two to three hours. The results of the glucose tolerance test may be indicative of hepatocellular disease, but owing to its nonspecific nature, it is not often used for the diagnosis of this type of jaundice.

Galactose Tolerance Test.—Much more specific

for the diagnosis of jaundice is the galactose tolerance test. Galactose is a carbohydrate which is converted to glycogen entirely by the liver and it is not metabolized as galactose by the extrahepatic metabolic processes of the body. The test is commonly done by giving the fasting patient 40 gm. of galactose in 400 cc. of water by mouth. The amount of galactose excreted in the urine, that is, not metabolized by the liver, is measured over a five-hour period. More delicate is the intravenous galactose tolerance test wherein 1 cc. of a 40 per cent solution of galactose is given per kilogram of body weight. The quantity of galactose in the blood is determined after seventy-five minutes.

With the use of the oral-urinary method of determining galactose tolerance, the normal person excretes 3 gm. or less of this sugar in five hours. In the hepatocellular type of jaundice, 4 or 5 gm. are excreted. In an obstructive type of jaundice, 40 to 50 per cent of the patients will give positive results with the galactose tolerance test, which means that quantities in excess of 3 gm. are excreted in a five-hour period. In general the test is not a definite diagnostic test, but the results may corroborate other evidence to help make the diagnosis. The intravenous test is much more sensitive. It has been reported that when more than 20 mg. of galactose per 100 cc. remained in the blood after seventy-five minutes, the results of the test were positive in 97 per cent of the cases of cirrhosis, in 81 per cent of the cases of hepatitis, and in 18 per cent of the cases of obstructive jaundice of less than six months' duration.

TESTS OF PROTEIN METABOLISM

In the synthesis of body proteins, the liver serves as an important link. The amount of total serum proteins reflects this function in that it is moderately decreased in chronic hepatocellular disease. However, the amount of total serum proteins is affected by many conditions other than disease of the liver, and hence it is of no great diagnostic significance.

Albumin-Globulin Ratio.—Of more importance in the diagnosis of jaundice is the albumin-globulin ratio and the changes which occur in the globulin fraction of the serum proteins. In primary hepatocellular disease there is a decrease in the albumin fraction and an increase in the globulin fraction of the serum proteins, thus producing a lowering or inversion of the normal albumin-globulin ratio of 1.5:1 to 0.5:1.

Tests for Abnormal Serum Globulin.—When damage to the parenchyma of the liver has occurred, more specific changes are seen in the gamma globulin fraction of the serum proteins than in the albumin fraction. These changes are not due primarily to changes in the liver but they seem to be the result of reticulo-endothelial irritation. Hepatitis can produce these changes but other conditions producing reticulo-endothelial irritation such as subacute bacterial endocarditis, rheumatoid arthritis, infectious mononucleosis, and tuberculosis can also produce the same changes in the serum globulin and hence also give the same reactions. However, it is usually not necessary to consider these diseases when one is trying to classify a type of jaundice. Tests which utilize changes in the globulin fraction of the serum proteins are the Takata-Ara test, cephalin-cholesterol flocculation test, colloidal gold flocculation test, and the thymol turbidity test.

Takata-Ara Test.—The oldest of this group is the Takata-Ara test. In this test mercuric chloride and sodium carbonate react with the abnormal globulin in blood to precipitate mercuric oxide. In general, the test is difficult to perform and difficult to interpret. Positive reactions are obtained in late cirrhosis and other forms of hepatocellular disease. Negative reactions are found in obstructive jaundice and metastatic malignant disease of the liver. Because this test is not highly sensitive in relation to hepatic function and because a large variety of conditions not related to disease of the liver give positive reactions, it is little used today.

Cephalin-Cholesterol Flocculation Test.—This

test is a useful one introduced by Hanger in 1939. It depends on the production of a precipitate (flocculation) of a prepared cephalin-cholesterol mixture by the abnormal globulin of the patient's serum. The reaction, as in other flocculation tests, depends on the presence of excessive amounts of gamma globulin and a decrease in the albumin or fraction of the albumin which inhibits the flocculation. The test is read after forty-eight hours and is reported on the basis of grades 1 to 4, depending on the degree of flocculation. Grade 3 and grade 4 reactions are considered significantly positive. The test is of great aid in the diagnosis of infectious hepatitis as the result is almost always strongly positive even in the early stages of the disease. The result is also positive in a high percentage of cases of cirrhosis or advanced metastatic involvement of the liver with cancer. It is usually negative in obstructive jaundice until the obstruction produces secondary changes in the liver.

Colloidal Gold Precipitation Test.—The colloidal gold precipitation test of Lange on spinal fluid has been modified for use with blood serum. That test depends on the precipitation of the colloidal gold by the abnormal globulin in the serum with the resulting decolorization of the solution. Complete decolorization of the solution is indicated by the figure "5." Varying dilutions of serum are used, and a positive reaction produces a curve similar to the paretic curve of the spinal fluid (5555542100). Like other flocculation reactions it is positive in hepatocellular disease.

Thymol Turbidity Test.—The thymol turbidity test was introduced by Maclagan in 1944. It has proved to be extremely useful because it is easy to perform and because it is one of the most reliable tests in the differentiation of obstructive jaundice from hepatocellular jaundice. A positive reaction depends on the abnormal globulin of the blood, producing flocculation of a saturated thymol solution of pH 7.8 which contains a barbitone buffer. The turbidity of the solution is compared with Kingsbury turbidity standards, and the results are reported in units of turbidity. The normal turbidity is from 0 to 4 units. Positive reactions early in the course of jaundice indicate hepatocellular damage, and negative reactions in early jaundice indicate that obstruction is the cause. In general, it has been shown that the thymol turbidity tests gives more uniformly negative results in the obstructive type of jaundice while the cephalin-cholesterol flocculation test is more likely to give positive results in hepatocellular disease.

Zinc Sulfate Turbidity (Kunkel Test).—The zinc sulfate turbidity test for abnormal amounts of gamma globulin in the serum proteins was devised by Kunkel in 1947 after he noted that salts of heavy metals in proper concentrations and at a proper pH would cause a precipitation of these globulins. The test is performed by mixing one volume of serum to be tested with sixty volumes of zinc sulfate reagent ($ZuSO_4$, barbiturate buffer at pH 7.5) and allowing these to stand for thirty minutes. After this time the amount of flocculation is determined by a spectrophotometer at 650 mμ and reading is then converted to units by means of a calculation chart. The normal is 6–16 units and elevated readings in disease can occur as high as 50–60 units.

The advantages of this test are that a single known alteration in the serum is measured, that is, elevation in amounts of gamma globulin, and the test is simple to perform, the reagents are stable, and the results are easily reproducible.

The results are elevated markedly in infectious hepatitis and hepatic cirrhosis and are generally normal in obstructive jaundice and in cholecystitis. High values may also be found in certain conditions associated with increased antibody production, but these do not reduce its value in the differential diagnosis of jaundice.

Prothrombin Time.—Prothrombin is a carbohydrate-containing protein produced exclusively by the liver when adequate amounts of vitamin K are present. Vitamin K is a fat-soluble vitamin which is absorbed from the intestine in significant amounts only when bile is present. Hence prothrombin may be deficient either when there

is severe hepatocellular damage or when there is obstruction to the bile passages.

The amount of prothrombin in the blood is measured indirectly by its ability to produce a clot in a definite period of time. Standard conditions are set up using the patient's plasma, an excess of calcium and a prepared solution of thromboplastin. The time that it takes the mixture to produce a clot is known as the prothrombin time, and it is very roughly inversely proportional to the amount of prothrombin present. The normal prothrombin time varies with the type of thromboplastin used so that controls must be run frequently; normal times are usually in the range of 18 to 20 seconds.

In jaundice, in which the prothrombin time is elevated, it is important to know if the prothrombin time will return to normal when adequate amounts of vitamin K are given parenterally; little change in the prolonged prothrombin time indicates severe hepatocellular damage, but rapid return to normal after administration of vitamin K indicates that the jaundice is most likely on an obstructive basis or that there is little or no damage to the liver cells.

TESTS OF LIPID METABOLISM

Determination of Cholesterol and Cholesterol Esters.—Cholesterol is a sterol found in all body tissues and fluids. The liver cells have the ability to esterify free cholesterol, and thus cholesterol esters are found to make up 70 to 76 per cent of the total cholesterol in persons with normal liver function.

Total cholesterol is determined by first extracting it from the plasma with alcohol, ether and chloroform. Acetic anhydride and sulfuric acid are then added, and a green color is produced. This is compared with the color of a standard solution. *Cholesterol esters* are determined by precipitating the free cholesterol with digitonin and then extracting the esters with petroleum ether. The amount of esters is then determined by the above-described color reaction. The normal value for total and cholesterol is from 150 to 250 mg. per 100 cc. of plasma.

The value for blood cholesterol varies in a great many conditions. In obstructive jaundice there is a rise in the value for total cholesterol and also in the esters, so that there is little or no change in the ratio. Hepatocellular jaundice causes no change or a slight decrease in the content of total cholesterol, but there is a marked decrease in the amount of cholesterol esters present so that their percentage of the total is markedly decreased. This decrease is roughly proportional to the severity of the damage to the liver.

TESTS OF EXCRETION OF DYE

It has been found that a number of dyes are removed from the circulation and excreted by the liver. Two of these which are used clinically to evaluate the status of the liver are sulfobromophthalein sodium (bromsulfalein) and rose bengal. These dyes are rapidly removed from the circulation by the reticulo-endothelial system (Kupffer cells in the liver) and then are more slowly excreted in the bile after having passed through the hepatic cells.

In the sulfobromophthalein test 5 mg. of the dye per kilogram of body weight are injected intravenously and a reading is made of the amount of dye remaining in the serum after sixty minutes; normally there is no dye remaining in the serum at that time. Rose bengal is given intravenously in a dose of 10 cc. of 1 per cent solution. The amounts remaining in the serum are determined in two and six minutes respectively. In a normal person 50 per cent of the dye present in the two-minute sample will have been removed by the time six minutes have elapsed.

Dye excretion tests best indicate the status of the liver in cases in which there is little or no jaundice, although methods have been devised recently that are applicable even in the presence of jaundice. Whether jaundice is due to hepato-

cellular disease or obstruction to the bile ducts, there will be marked retention of dye so that as a test to differentiate these two types of jaundice, this type of procedure is of little value.

DETOXIFICATION TESTS

Hippuric Acid Test.—The liver acts to protect the body from certain toxic substances by causing conjugation to form relatively nontoxic substances which are excreted in the bile and urine. Some of these toxic substances are indol, salicylic acid and menthol. Benzoic acid has been used as a test of this function since it is conjugated with glycine, which is produced only by the liver, and is formed into hippuric acid in the liver and kidneys and is excreted as such in the urine.

The accuracy of this test depends on the ability of the kidney to excrete the hippuric acid; hence it is not recommended for patients who have an elevated value for nonprotein nitrogen. It also depends on an adequate output of urine and a complete emptying of the bladder. The benzoic acid can be given orally or intravenously but the intravenous method is the more sensitive. The oral test is done by giving the subject 6 gm. of sodium benzoate, and the urine is collected for the following four-hour period. With the intravenous method, 1.77 gm. of sodium benzoate is given, and the urine is collected for one hour. The hippuric acid is precipitated from the urine with ammonium sulfate and hydrochloric acid and is weighed. In the intravenous test, 0.7 to 1.2 gm. are excreted in an hour while with the oral test 3 to 4 gm. are excreted in four hours by the normal person.

Obstructive jaundice of short duration and hemolytic jaundice are associated with normal levels of excretion whereas all types of hepatocellular jaundice are associated with a marked decrease in the amount of hippuric acid excreted.

SERUM ALKALINE PHOSPHATASE TEST

Alkaline phosphatase, an exo-enzyme, is produced in the body mainly by the osteoblasts and is excreted to a large extent by the liver. When abnormal osteoblastic activity is not present, elevation of the value for serum alkaline phosphatase is usually due to damage of the liver. The amount of alkaline phosphatase in the serum is determined by incubation of the serum with a glycerophosphate solution to produce inorganic phosphate (Bodansky method). The results are expressed in Bodansky units; 1 Bodansky unit is equivalent to 1 mg. of phosphorus liberated. Normal adults have 1.5 to 5 units of serum alkaline phosphatase per 100 cc. of serum.

In general, the test is not one of great diagnostic value in the differential diagnosis of jaundice. Elevations in the value for alkaline phosphatase do not parallel the degree of hepatocellular damage. The amount is usually normal in hemolytic jaundice, moderately increased in hepatocellular jaundice, and markedly increased in obstructive jaundice, but the increases are not constant enough to be of great diagnostic significance.

TESTS OF SERUM AMYLASE AND LIPASE

Amylase is found in the serum in remarkably constant amounts, and the amount is unaffected by food, starvation, diuresis or dehydration. The source has not been proved but it is suspected that amylase is produced mainly by the pancreas and the salivary glands. Obstruction of the pancreatic duct due to ligation or inflammation produces a pronounced elevation of the serum amylase levels, and similar elevations are found in acute epidemic parotitis. Sudden obstruction of the common bile duct or pancreatic duct will cause a decided increase but the effect is transient and normal levels are regained in seventy-two hours.

The serum amylase is determined on the basis of the length of time required for the amylase to digest a standard starch solution. The degree of digestion is determined by noting the change in color of a mixture of iodine and starch from blue to brown, when the starch is all digested. The

results are calculated by formula and are reported in units of amylase activity. The normal is 80 to 150 units, and to be clinically significant the value must be over 320 units. In the icteric patient, elevations are most conmonly seen when the jaundice is obstructive in nature. The levels are usually normal in hemolytic and hepatocellular jaundice.

Like that for serum amylase, the value for serum lipase is elevated in the obstructive type of jaundice. The level of lipase activity is measured by the effect of the serum lipase on an olive oil emulsion to produce free fatty acids which are measured by titration with tenth-normal solution of sodium hydroxide. The results are reported in cubic centimeters of sodium hydroxide solution needed to neutralize the fatty acids produced by 1 cc. of serum. The normal is less than 0.3 cc. of tenth-normal solution of sodium hydroxide per cubic centimeters of serum, but the amount may rise as high as 10 cc. in cases of acute pancreatitis.

COMMENT

A review of the problem of diagnosis of the jaundiced patient, emphasizes the great value of a careful and complete physical examination and history. In many cases the diagnosis can be made by these means alone. However, in spite of the certainty with which one can make the diagnosis in many cases, routine liver function tests should be performed to confirm the diagnosis even when the clinical picture seems to make the etiology of the jaundice obvious. This may seem superfluous at times, but if the tests are done, some cases in which the clinical picture is entirely misleading will be uncovered and the correct diagnosis will be made, which may save the patient an unnecessary operation. In many cases the clinical picture will be inconclusive. In these cases the liver function tests are not used to support the diagnosis but are depended upon to establish the diagnosis. This they will do in most instances. In such cases the tests have proved invaluable. Finally in a few cases the laboratory tests as well as the history and physical examination will prove inconclusive. It is in these cases that surgical judgment and experience are invaluable, for surgical treatment may cause cure when correctly applied or injury to the patient when ill advised. Unfortunately, surgical judgment cannot be acquired from the printed page or in the laboratory. It is best developed by experience and, in particular, careful analysis of one's past errors.

SUMMARY

It has been pointed out that liver function tests, in addition to a complete history and physical examination, are of great importance in determining the etiologic factors which cause jaundice. To be of greatest aid, these tests should be performed as early in the course of jaundice as possible. The essential laboratory procedures which should be used for diagnosis in all cases of jaundice pertain to determination of the serum bilirubin, fecal urobilinogen, duodenal drainage, cephalin-cholesterol flocculation, thymol turbidity, zinc sulphate turbidity and prothrombin time. The essential principles and procedures of these tests and other tests have been presented so that they may be better understood, and the results of these tests in the various types of jaundice have been presented in tabular form.

MEDICINE'S NUMBER ONE PROBLEM[1]

HOWARD A. RUSK, M.D.[2]

Medicine's number one problem today has been medically created. If we are to meet the problem, the leadership must come from medicine.

Medicine's number one problem is the problem of chronic disease in an aging population, made up of all the results of good medicine, a problem created by liver extract and insulin and x-ray techniques, and vitamins and penicillin, cortisone, ACTH, good x-ray and the type of cardiac surgery you developed here in Baltimore, and everything that has gone into making medical care in America what it is today.

For that reason, you can readily see what has happened. Two thousand years ago, man's expectancy was twenty-five. At the turn of the century, forty-nine. Last week it was seventy-one years for white women and sixty-five and a half years for white men, in the United States. A white man of sixty-five today, has an expectancy of twelve and four-tenths years and a white woman of almost fourteen and a half years.

Twenty-five per cent of the population in America in 1940 were beyond the age of forty-five. They required fifty per cent of the medical service. By 1980 almost fifty per cent of the population will be beyond the age of forty-five and they will require eighty per cent of the medical service.

If you want a figure to conjure with on your insomniac nights—and I'm not recommending it therapeutically—let me give you the veteran figures. At the end of World War II, there were three million, four hundred thousand veterans from World War I still alive and their average age was fifty-three. In 2000 A.D., there will be three million seven hundred thousand veterans from World War II still alive, and their average age will be seventy-eight. This problem is not only medicine's number one problem but one of the primary problems in our economy because if we don't do something about the retirement willy-nilly at sixty-five, on the chronological rather than the physiological age; if we don't do something about utilizing our chronically ill within their capacity, and training our physically disabled and utilizing them in our own economy, by 1980, for every able-bodied worker in America, there will be one in those three categories on that worker's back.

I think one of the most interesting phenomena is, where did the year "sixty-five" come from? I've not been able to find it but I have a definite idea. I believe it came, not from a symposium of physiologists who came to a conclusion that this was the retirement age, I believe it came from a Board of Directors that had a meeting one day when the President was out of town, and he had been a mean old so-and-so for a long time. While he was away there suddenly decided here is a solution to our problem; we'll have compulsory retirement at sixty-five, and I think it has been pretty well followed since because there is no rhyme or reason nor magic to age sixty-five.

What would we have lost had Winston Churchill retired at sixty-five. We probably wouldn't be discussing the same things tonight that we are. And Mr. Bernard Baruch, we would have lost fourteen years of his wise counsel, including the rubber program and the Atomic Energy Program. I always think of Harvey Cushing. He went to Yale at sixty-five after he was retired from Harvard where he did most of

[1] I. Ridgeway Trimble Fund Lecture, presented at the Annual Meeting of the Medical and Chirurgical Faculty, April 25, 1950.

[2] Professor and Chairman of the Department of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center; Associate Editor, The New York Times; Consultant in Physical Medicine and Rehabilitation to the United Nations, Veterans Administration, and the New York City Department of Hospitals.

his distinguished work. And Toscanini, who goes on barnstorming trips across the country is another example.

You know perfectly well that some people are old at forty, others young at seventy-five and it is a physiological rather than a chronological approach that we have to make.

I would say from my observation, that industry and labor and the politicians are crying to us in medicine today for some solution to this problem because you get to an end point in pensions rather quickly, and you can't see the end of the road unless these individuals can be utilized, can be evaluated, can be kept on.

You know perfectly well; you've seen them every day. Some individuals can hardly wait till the day they retire. They want to raise rabbits, peonies, or set up a store or go to Florida, or finish their stamp collection. Others loaf around the door of the office, waiting to see if business will close the day they don't come down, and usually they are not with us six months or a year from that day.

This is, I think, a medical and community responsibility. To me it is preventive medicine of the future. I want to give you one example of the experience we have had in New York, that will illustrate what I am talking about in preventive medicine.

I don't think that our primary problem is milk supply and water supply and immunization and all the things that we have known in the past. I think it is a decompression program for the older age group. It is a matter of adding life to years as we have added years to life.

Five years ago in New York, for a very interesting reason, we set up a community center for the older age group because in one welfare office in the Bronx they were mobbing the place all the time. The worker didn't have any chance to get work done with clients coming in all day with "The eggs were cold," "Miss So-and-so said something about me," "The roof leaked," "I didn't get my check" something or other.

It was decided to get three rooms in the old City Hall and set up a community center where this old age group could go, and see if they could cut down the number of gripes. The ground rules were this: The club was self-operating; you had to be sixty to get into this group. They put in one worker; they got an old second-hand piano, a "beat-up" pool table, three or four card tables and they opened.

They now have had five years experience with seven hundred patients with average age seventy-six. The rules are they run their own program. They have a committee that visits the sick and sends birthday cards. The worker described it well to me: "The first three or four weeks, the old people come in, they are disturbed, they can't understand why anyone wants to do that for them. All of a sudden, the skin texture changes and they have a light in their eye, they are there when we open in the morning. The whole thing is that life is different." There have been eleven weddings since they opened five years ago. They are open from nine to five every day and have two dances a week.

But the payoff is this. In this age group, varying from sixty-six to eighty-eight, with an average age of seventy-six, admission to the general hospital for medical reasons in the last five years was fifty per cent below expectancy. The payoff was this—and I got this figure from the American Psychiatric: There should have been forty admissions to mental hospitals for senile psychosis in this age group in the past five years. There has not been one single admission. I got out my pencil and paper and here are the figures. To have kept the forty in that hospital at that time, it was ten thousand dollars more than the fifty cents per week per patient that it took to run the entire center. I give you the illustration because I think that sort of thinking has to spearhead the preventive medicine in the future if we are going to meet this particular problem. It takes medical leadership but community responsibility.

The part that we are particularly interested in medically, are the problems of the chronically

ill and the physically disabled. The best figures that I can give you on the chronically ill, are from a survey made by the Department of Public Health in the Yale University College of Medicine within the last two years.

They found that one hundred twenty-one individuals per thousand population in New Haven were suffering from chronic disease or physical disability. Forty of the one hundred twenty were so severely ill or disabled, they were unable to work and forty were under the age of twenty-five.

We can never meet this problem, in my opinion, if we confine our thinking to hospital beds; to facilities; to places where these individuals can be hidden out and gotten out of sight. In the first place, there isn't enough money to build the beds if there were enough people to train and run the beds; if there were enough money to pay the people who were trained to run the beds, once they were trained. There just isn't enough. The veteran figures readily give you the index.

It is our deep feeling that this responsibility is an integral part of medical care, and we don't talk about rehabilitation any more because rehabilitation isn't a good word. Rehabilitation first was used to "cover the waterfront;" war-torn countries; social problems and hospital buildings. I got the payoff of payoffs a month or so ago when one of our patients said she could not go on the program, she had to have her wheelchair rehabilitated. Rehabilitation literally means returning one into his former state. Pretty poor program for the cerebral palsied child.

We talk about dynamic therapeutics in chronic disease. A third phase of medical care—the first being prevention—the second being definitive medicine and surgery, and the third being that thing which happens between the bed and the job. What do you do with what you have left? We feel it is an integral part of hospital care. Our service at Bellevue operates like a service department, just like x-ray and lab. We bring patients into our Ward on one simple criteria—can we benefit these individuals by training; to let them live a fuller life?

We see all patients before they go on home care. If we can train an old multiple sclerotic or hemiplegic to meet his daily needs and walk about, it cuts the home care cost in half and that goes on for an indefinite period.

This is a program that has to be run by a team. The team comprises first, the doctor, and the doctor's training comprises first, a real understanding of basic medicine and from there he goes into the special techniques in the special field of rehabilitation. On his team is the physical therapist and the occupational therapist, the teacher and social worker, the nurse and the speech therapist and the vocational counselor. Recently, we have added a new service at Bellevue on a research basis, the job-placement counselor.

An individual comes into the service and in addition to the medical survey, he gets two or three very simple examinations. He gets a definitive muscle test: He gets a careful evaluation of range of motion of the joints. But the heart of our whole program is the simplest thing in the world. It is a test for a hundred inherent needs of daily living. Can you brush your teeth? Can you comb your hair? Can you turn from side to side in bed? Can you put on your own clothing? Can you put on your own braces? Can you get from bed to wheelchair, wheelchair to toilet, toilet to wheelchair, wheelchair to bathtub, bathtub to wheelchair? If you can stand, can you walk? If you can sit, can you stand? If you have to learn to walk, what kind of crutch gait? And there are some dozen that will meet your specific need. After you get the score, then you sit down and work out the program to meet that individual's need.

I'd like to talk clinical medicine for five minutes. I'd like to tell you about our hemiplegics. There are one million hemiplegics in the United States, more than ninety per cent of them due to cerebral vascular accidents; a large per cent

on a thrombotic basis due to arteriosclerosis. There are your "crocks," and I like John Romano's definition of a "crock." He defines a "crock" as the patient from whom the diagnostic sheen has been worn. Practically all of our patients are "crocks" and the hemiplegics are one of the best examples.

We have recently finished the evaluation of our first one hundred cases at Bellevue, typical Bellevue patients, average age sixty-three. They varied in age from eighteen to eighty-two. They varied in duration from one day to nineteen years. Forty per cent have had some degrees of aphasia. After their evaluation, they are started in a training program.

I'd like to say that speech therapy is the most neglected phase of medical therapy today. Our forty aphasics have given us a very graphic insight as to the problem; not as graphic as a young lawyer that I saw at a meeting in Chicago, six months ago, who had his thrombosis on a golf course; a very small lesion affecting primarily Broca's area. All of a sudden he was speechless and with a little weakness on one side.

He went to three doctors and it took five weeks before he obtained a definite diagnosis. The unfortunate thing is that in those five weeks, no one sat down and said to him, "you have aphasia, aphasia affects your speech. I know what it is, you're not losing your mind, no, you don't have softening of the brain. You aren't going crazy, and there's a way you can be taught to talk again. It's a long, painful process but we have taught patients in a period of six months to have a vocabulary of four to five hundred words who have been one-word aphasics for as long as twenty years. We are going to teach you as soon as you feel you are ready to come to classes; don't worry, you know and I also know what you have. I have an idea how frustrating it is because I know how frustrated I am when I can't remember somebody's name; and I know that you know that is a watch but that you can't say 'watch' and you and I understand each other."

If you do just that, half your battle is won. And if you are in the country where you don't have a speech therapist—and that is the answer they always come back with, "they aren't available" let me give you a tip. I may be right and I may be wrong. The horse races run near Baltimore, and you know what the odds are. If you will canvass your public schools, I'll give odds on a bet that you will find someone in the public school who has had training in speech and who can take on the basic program for the average aphasic. Such a person can give your patient the necessary care and relieve you of the burden and responsibility, and it will also give under-paid teachers a chance for a little extra work on their off hours.

We believe in early ambulation for hemiplegics except in hemorrhage, and of course you know the mortality of hemorrhage is more than eighty per cent.

We believe they should be kept in bed three weeks if they are frankly hemorrhagic. They should be kept in bed if it is necessary, for the systemic cause of the embolus. If they are thrombotic, we like to get them up on the day they become conscious. We like to start the program the day they come into the hospital. It is a very simple program.

First, you put a footboard on the foot of the bed to keep the covers off the toes, to keep from aggravating the foot drop. Second, you put a sandbag or a soft pillow (you can make an excellent one with discarded sponge rubber) in the axilla, one inside and one out, to prevent outward rotation of the shoulder. Do the same thing to the lower extremity to prevent outward rotation of the thigh, and start simple passive motion of the shoulder the first day. When the patient becomes conscious, get an old piece of pipe and bend a gooseneck to go over the bed, or use the sort of stand that you use to give glucose. If it is in the patient's home, get a shelf bracket and screw it in the wall over the bed. Either one is equally good. Get a ten cent window pulley and a dime's worth of clothesline rope, and that is

all you need to put over the patient's bed. Make a double loop so that one goes around the wrist and one around the palm of the hand, and as soon as the patient becomes conscious, start exercising the bad arm with the good. You get a double play because there's strength in the arm that is going to be their crutch hand and the shoulder won't freeze.

If a shoulder is left alone for one week, it will freeze wholly or in part, and will take from six to eight weeks of hard and painful work with the best therapist to get the shoulder unfrozen.

With pulley therapy, you will get fifty per cent more motion the first day you start than any trained therapist can give, because the patient knows his own pain threshhold.

When you get the patient up to walk, there will be several things that will bother you. In the first place, a certain percentage will have clonus; if so, remember 90 per cent of the impulse of clonus comes from the toe, so get a little piece of board an inch wide and a quarter inch thick and take a piece of adhesive and fasten across the ball of a patient's foot. They will walk the "heel ball gait" rather than "heel toe gait" and you will find that ninety per cent of your clonus is well controlled within a period of a week.

Better control can be obtained with a short leg brace with a ninety degree stop and a pronator strap. We find that fifty per cent of our hemiplegics require such a support. The first reflex to come back in the foot is the climbing reflex. If you see some of your old hemiplegics with a foot drop, ask them to bring up their toe and they can't do it; ask them to bend their knee and you will find their foot will flex automatically in pronation.

If you don't put a brace on with a pronator strap, when they come down, they have instability with resultant falls and fractures. Use a short leg brace and a pronator strap and then teach the patient to walk with a bent knee. They'll never develop a normal gait if you keep them in a walker. You have to get reciprocal gait the way you walk all the time. That is why we start all our patients in parallel bars. Not the gymnasium bars, but the kind the plumber can build with an inch and a half pipe and about three feet, six inches high. If it wears the skin off their hand, you can get an old leather glove and make a little curve around the pipe so they can slip along that way. It gives them balance and they get the reciprocal motion.

You will find also that the hands, ninety-nine per cent of the time will come back last. You will find also that if you see a patient in bed and he has quadriceps, if he can raise his leg, you can say accurately that that patient can be taught to walk.

When the hand begins to come back—following Sherrington's original work of the reinforced reflex—if you will have the individual, when he tries to do something with the effective hand, turn his head very sharply to the side of the effective hand, you will find that his strength will be from twenty-five to seventy-five per cent greater than if he head is turned to the opposite side

These are little tricks but if you put them all together, you will have the same experience we had, that is, ninety per cent of your hemiplegics can be taught self-care and ambulation, and in our experience, forty per cent will return to gainful employment.

Old hemiplegics with a "modicum," maybe a "soupcon" of cerebral degeneration may be seen lying around in the chronic wards, who are incontinents and whom you cannot train to primary continence. The incontinents will never be trained unless they are gotten on their feet. The same is true of paraplegics. Unless they are gotten on their feet and get the benefit of hydrostatic pressure, they will never be trained to automatic bladders.

Now we don't feel that vocation is the alpha omega of this program. We feel if we can take an old hemiplegic and train him to self care and relieve the nursing burden of institutional care, it is well worth our training time, which for the average hemiplegic is six weeks.

The same program with many variances is true for the quadriplegic. Quadriplegia isn't a hopeless problem. We have had twenty-one in the last year, and you will find if you evaluate your quadriplegics, that eighty per cent will come between the fifth and sixth cervical, and there is a very good anatomical and anthropological reason for that. You will find that about half come from automobile accidents, and thirty per cent of the rest will come from swimming accidents, and fifty per cent of the swimming accidents will come from surf rolls. Go into an ocean wave and your head acts as the handle of a whip, and your body as a whip.

Well, with special apparatus such as a large handle, knife, fork and spoon which you can hold, patients are taught to feed themselves, brush their teeth; comb their hair; ladies to make their facial toilet; men to shave; they can type with a little "dingus."

We have had an interesting experience with a girl who got out of Bellevue recently. This girl was twenty-six, a Nisei, who had broken her neck at the fifth and sixth cervical. We had her in a ward. It took five months to train her. She had all the classical things that I've described. She had a very difficult vocational problem because she was an artist, and we didn't think she could ever do commercial art again. She was a textile designer.

We have learned one thing in this program, don't tell people what they can't do unless you have tried them because you don't know. We made her a soft mit which went over her hand, and fastened with a thong which she could fasten herself. Two holes were placed in the end so that she could put a paint brush through, and we gave her some paints and said "try." Much to our surprise, she could paint practically as well as she did before she was hurt.

To make a long story short, she went home on home care. Her mother was able to quit her job, her younger brothers were able to come back in the home. She and her father make a living for the family, and the mother looks after the family and they have been doing it now for six months. She was given a commission to do art work at home and she was good enough to get it on her own merit.

We don't have to apologize for the things that disabled people can do. Every survey that has ever been made on their utilization in industry has shown the same result, better production, lower accident, lower absentee and five to nine times less labor turnover than the normal individual working side by side with him.

If I could leave one thought with you tonight, I think I would rather leave this thought. The reason you do a good job practicing medicine is that nature has given all of us tremendous powers of over-compensation. The blind man learns to see with his sense of touch and his ears. The deaf man learns to hear with his eyes, and our paraplegics walk on their hands. Put a paraplegic on a stool where he can sit and use that tremendous over-developed skill and he can give the normal man cards and spades and outwork him any day in the week.

I have had this said may times, "Well, what are you going to do, this program sounds fine when full employment is here, but what are we going to do with these people when hard times come, when there aren't enough jobs for everybody?" It's a question that infuriates me. We are not asking for a head start. We are asking for an even start and any time that the normal can't meet the competition of the disabled person in this country, then we better give it back to the Indians and start over. Let them take their chance along with everybody else, but don't let them have two strikes on them before they come to bat.

We have had an interesting experience in the last six months with a research program that I think is just as fundamental as the first social service program that was started at the Massachusetts General Hospital fifty years ago.

A group of young veterans, business men, top young business men, formed a voluntary committee. It was headed by a man who had lost

one leg and most of the other in the battle of the Bulge. They met twice a month to help place our trained people in industry. They got so interested in it that they set it up as a research project, and now we have a bilateral amputee who heads it. He was formerly a personnel man in a large manufacturing concern in New York, who devotes his full time to it.

We have preferential employment for our people from Sperry Gyroscope, Grumman Aircraft, Gimbel Brothers, all the hotel industries in New York and including five labor unions, because they say that they know more about our people and what they can do than the normal, both psychologically and physically. We say to them, if you've got a job, give them a chance, and if they can't deliver we'll take the terminal interview off your hands and we'll replace them ourselves. Since September when we started, we have not had to replace one single individual.

Ladies and Gentlemen, in my opinion, while this isn't as glamorous as high fever and the acute medical problems that we have been trained to feel was the epitome of professional mastery in the past, this is a responsibility we must accept because we have created it.

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A SPECIAL REQUEST!

The Surgical Section of the Baltimore City Medical Society has a very incomplete roster. It would be appreciated by the members of this Section if each member of the Baltimore City Medical Society who practices surgery would send his or her name and address to Dr. E. Roderick Shipley, 618 Medical Arts Building, Baltimore 1, Maryland.

The Surgical Section will appreciate receiving this information as soon as possible.

Reports

SUPPORT THE BLUE SHIELD

HOUSTON S. EVERETT, M.D.*

As this is July all of us engaged in the active practice of medicine have recently been called upon to renew our Federal narcotic licenses. In order to do this we have been required to obtain a certified check or postal money order for the sum of one dollar ($1.00), it being stated in the regulations that personal checks or cash are not acceptable. (The same Department of Internal Revenue which handles this matter accepts personal checks for hundreds or thousands of dollars in payment of income tax.) Until last year in order to obtain renewal of the narcotic licence it was also necessary to obtain notarization of an inventory.

These small but time consuming annoyances are but minimal examples of the red tape that we as physicians would be subjected to, not yearly or even daily, but hourly should we ever come under regulation of the Federal Government by the terms of a plan of compulsory health insurance such as that advocated by our present socialistic administration.

Nevertheless the desirability of some method of provision for prepayment of the cost of possible expensive illness by voluntary insurance is almost universally recognized. No group has been quicker to recognize this need than have the members of our profession. Under the leadership of the profession, Hospital Service (Blue Cross) and Medical Service (Blue Shield) plans have been instituted in most of the states or communities of the country. While the Blue Cross plan was established quite early in Maryland it was less than two years ago, and after prolonged efforts by two separate committees of our State Society, that a Blue Shield plan was finally established. The plan as finally established underwent gestation and delivery by a large committee representing a cross section of the profession of the state under the chairmanship, quite appropriately, of an able obstetrician, Dr. Louis H. Douglass.

In the numerous and long sessions of this Committee, of which the writer was a member, it soon became evident that no plan could ever be evolved which would be entirely satisfactory to the entire profession of the state in every detail. But a plan was evolved which eliminated objections to the point that it was adopted and established.

Eight of the twelve members of the Board of Directors of the Maryland Medical Service, Inc. have been appointed by the President of the Medical and Chirurgical Faculty of the State of Maryland. These men have rendered yeomen service and carefully guarded the interest of the profession. With the changing economic situation it became evident that for success of the organization certain changes were necessary. The power to make these changes without submission for referendum to the profession had been conferred upon the board of directors. This board, however, feeling that the good will of the profession was as essential to success as a sound financial basis, chose to submit their recommendations to the profession of the state at the annual meeting of the "Faculty" in April 1952.

For a time it seemed that a rehash of details objectionable to some small groups, such as had taken place in the original committee, might

* Member, Committee on Public Medical Education, Baltimore City Medical Society.

take place in the House of Delegates. This was overcome, however, and with some modifications the suggested changes were submitted for approval to the various component societies. Such approval has passed by a large majority.

By so doing the profession of the state has again taken a constructive step in combatting the threat of socialized medicine. Consider the advantages: Red tape and paper work are kept to a minimum. While some fees are reduced the payment of a larger proportion of all fees is assured. Most important of all the conduct of our lives and work is still in our own hands without interference by that Behemoth, the Federal Government.

Continue to support the Blue Shield!

* * * *

SUMMER HOURS FOR THE FACULTY BUILDING

June 16, 1952 to October 1, 1952
Monday through Friday—9 a.m. to 5 p.m.
Saturday—9 a.m. to 1 p.m.

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SUPREME COURT RULES IN FAVOR OF OREGON MEDICAL SOCIETY

Capitol Clinic, A. M. A., Bulletin No. 49—82nd Congress, May 1, 1952

The United States Supreme Court in a seven to one decision April 28, dismissed an appeal of the government against the Oregon State Medical Society, eight county medical societies, Oregon Physicians Service, and several physicians who are or were officials of these organizations. Previously a U. S. District Court had ruled against the government's antitrust violation charge and a direct appeal had been taken to the U. S. Supreme Court.

The controversy in Oregon began in 1936 when the medical society opposed contract practice of medicine sponsored by private firms and commercial insurance companies. At that time the medical society charged that medical treatment and service was dependent upon company approval and in some cases the advice of physicians was disregarded. The medical society raised the ethical objection that third parties were entering the doctor-patient relationship. The medical society in an effort to bring about reform of prepaid medical service within the State, decided in 1941 to render itself such service on a nonprofit basis. After seven years of successful operation of the society plan the government brought suit charging the society with monopolizing the business of providing prepaid medical care within the state.

The Supreme Court said at one point, "Objections of the organized medical profession to contract practice are both monetary and ethical. Such practice diverts patients from independent practitioners to contract doctors. It tends to standardize fees. The ethical objection has been that intervention by employer or insurance company makes a tripartite matter of the doctor-patient relation. Since the contract doctor owes his employment and looks for his pay to the employer or the insurance company rather than to the patient, he serves two masters with conflicting interests. In many cases companies assumed liability for medical or surgical service only if they approved the treatment in advance. There was evidence of instances where promptly needed treatment was delayed while obtaining company approval, and where a lay insurance official disapproved treatment advised by a doctor."

Component Medical Societies

ALLEGANY-GARRETT COUNTY MEDICAL SOCIETY

LESLIE E. DAUGHERTY, M.D.
Journal Representative

County Physician Requirements

Cumberland is in need of one chest surgeon, one neuro-surgeon and one orthopaedic surgeon, to adequately cover its needs.

* * *

The Allegany-Garrett County Medical Society held its regular monthly meeting on Friday, May 16, at 8:30 p.m. in the Memorial Hospital Nurses' auditorium.

Dr. Leon A. Kochman, Chief of the Arthritis Clinic at the University of Maryland, discussed "Arthritis in the Geriatric Patient." Dr. Kochman is one of the directors of the National Arthritis and Rheumatism Foundation and during the coming year will be making monthly visits to Cumberland, as part of his work in the Arthritis and Rheumatism Foundation.

Dr. D. P. Ray, Director of the Johnstown area blood bank was present, to discuss any problems concerning the several blood banks in Allegany and Garrett Counties.

* * *

Civil Defense

Organization for Medical Care is being rapidly completed in Allegany County. There are approximately 80,000 people in the county, the largest unit being in Cumberland with a total population of 40,000 including the surrounding suburbs.

Cumberland will have four Casualty Clearing Stations, and one in Frostburg and also one in Westernport, Maryland.

The Assistant Director of Medical Services is Dr. William F. Williams, with Dr. William A. Van Ormer serving as Chief Deputy.

Dr. Richard A. Williams is Deputy Director for Administration.

Dr. Benedict Skitarelic is Chief of Biologic Warfare.

Dr. Emmett L. Jones is Chief of Medical Personnel.

ANNE ARUNDEL COUNTY MEDICAL SOCIETY

GEORGE C. BASIL, M.D., *Journal Representative*

The new x-ray equipment has been finally installed at the Anne Arundel General Hospital. Progress is being made on the plans for the construction of the new wing of the Hospital, which is supposed to be started early this summer.

A dinner was given in honor of Dr. William J. French at Carvel Hall on the 21st of May. The dinner was sponsored by the Anne Arundel County Medical Society to pay tribute to a wonderful job done by Dr. French for the Medical profession in the county during the past sixteen years. For his services and in appreciation, a silver tray was presented by Dr. Emily H. Wilson. The State, as well as the County, was well represented and many eulogies were offered by the guests who included Dr. Claude R. Ball, senior medical officer of the Severn River Naval Command; Dr. Perry F. Prather, Deputy Director, State Department of Health; Dr. Huntington Williams, Commissioner of Health for Baltimore City; Dr. Edward Davens, Chief of the Bureau of Preventive Medicine; Dr. C. A. Perry, Chief of the Bureau of Laboratories, State Department of Health; Dr. John Whitridge, Jr., Consultant in Obstetrics for the State Department of Health and former Chief of Obstetrics at Anne Arundel General Hospital; Dr. Jean R. Stifler, Consultant in Pediatrics, State Department of Health; Dr. Paul A. Harper, Professor of Public Health Administration, Maternal and Child Health Division of the School of Hygiene and Public Health, of The Johns Hopkins University; and Dr. Amos F. Hutchins, Baltimore and Anne Arundel County physician; and Dr. Harold R. Bohlman. Dr. Stuart Christhilf served as toastmaster. Assisting him in planning the dinner were Dr. Emily H. Wilson, who was the President of the Society when plans were laid for the dinner, Dr. Robert S. G. Welch, Dr. Donald H. Hooker, and Dr. Elizabeth Peabody Trevett.

BALTIMORE CITY MEDICAL SOCIETY RADIOLOGICAL SECTION

RICHARD B. HANCHETT, M.D., *Secretary*

The April meeting of the Radiological Section of the Baltimore City Medical Society was held on Tuesday, the 15th. Our guest speaker was Dr. Kenneth Corrigan, Director of the Radiological Research Department of the Harper Hospital in Detroit, Michigan. His subject was "Radioactive Isotopes in Medicine," and he gave a particularly fine presentation.

He confined his talk, for the most part, to practical demonstrations of the use of radioactive isotope tracer techniques and the differential diagnosis of a number of pathological states, in particular, thyroid disease and mediastinal tumors. In the differential diagnosis of mediastinal tumors, which has long been a difficult task for radiologists and specialists in chest disease, radioactive isotope tracer technique can quite accurately separate the mass into one of three groups—lymphoma, aberrant thyroid or other lesions. This, in conjunction with other information obtained in the general workup of the patient, has been most useful.

Some of the studies performed on patients with thyroid disease have been quite spectacular, as aberrant adenomas of this gland have been found in areas far removed from the usual location through the use of sensitive detecting instruments. This gives the surgeon an ally in his treatment of thyroid disease. An example of this was the removal of toxic adenoma from the mediastinum and the posterior cervical region in a patient who had obvious clinical signs of hyperthyroidism but whose thyroid gland did not appear to be remarkable.

Dr. Corrigan emphasized the real work is just getting under way in this field and felt that in a relatively few years, radioactive isotope tracer techniques will be standard procedures. He pointed out that properly performed, there is no more exposure of radiation to the patient than that received from an ordinary x-ray examination.

BALTIMORE COUNTY MEDICAL SOCIETY

DONALD L. SOMERVILLE, M.D.
Journal Representative

The Baltimore County Medical Association held its May meeting at the Dundalk Y. M. C. A., and due to the numerous and pressing items of business, the scheduled scientific portion was not presented. Outstanding among the matters discussed by the members present was the report of the Association's delegates to the Medical and Chirurgical Faculty, presented by one of the delegates, Dr. Melvin E. Davis. The members learned of the proposed changes in the Blue Shield eligibility requirements, and voted to raise the income level from $3,600 to $4,000. It was also voted to maintain the present flat rate $100.00 fee for obstetrical services under the Blue Shield.

Much interest was shown in the proposal brought out at this meeting that the Presidency of the Medical and Chirurgical Faculty should alternate yearly between a representative from the City of Baltimore and a representative of the Counties. This was passed as a resolution to be sent to the Secretary of the Medical and Chirurgical Faculty as well as sent for reply to all the component Medical Associations in the various Counties. Similarly approved and acted upon was the idea that the members of the Faculty Council should be limited to two terms or a total of 6 consecutive years.

Dr. Samuel P. Scalia, Chairman of the Public Relations Committee, reported that the Association-sponsored County High School Art Contest would be judged late in May. The first prize is to be a $50.00 U. S. Savings Bond, and the three winners will be invited, with the judges, to the June meeting.

The Association welcomed the new Assistant Health Officer, Dr. Robert T. Hyde, who recently began his new duties in the Baltimore County Health Department. Dr. Hyde had previously been engaged in tuberculosis control work in the Florida State Board of Health. His predecessor in Towson, Dr. James E. Peterman, is now in Newark, New Jersey, as District Health Officer for the Health Department of that State.

CARROLL COUNTY MEDICAL SOCIETY

W. H. FOARD, M.D., *Journal Representative*

Members of the Carroll County Medical Society were invited to attend a special meeting sponsored by the Frederick County Medical Society, on June 17th, at the Peter Pan Inn near Frederick.

The meeting was in honor of Dr. Victor Cullen. The program consisted of a Symposium on Tuberculosis.

The regular meeting of the Carroll County Medical Society was held on June 18th, at 1:00 p.m., at Hoffman Inn in Westminster. Our guest speaker was Dr. Howard B. Mays from Baltimore. He spoke to us on Genitourinary Problems.

HARFORD COUNTY MEDICAL SOCIETY

CHARLES R. HAYMAN, M.D., *Secretary*

A joint clinical meeting was held on May 23rd, with the staff of the Station Hospital, Aberdeen Proving Ground. Two very interesting military surgical cases were presented and discussed. Dinner was served at the hospital officers' mess.

KENT COUNTY MEDICAL SOCIETY

ROBERT E. ENSOR, M.D., *Journal Representative*

The Kent County News, Chestertown, Maryland, on Friday, May 16, 1952, published the following:

Dedication of the new wing of the Kent and Queen Anne's Hospital, which with other improvements made to existing facilities is being completed at a total cost of approximately $170,000, is set for Saturday afternoon, May 17, at 2:30 p.m.

The principal speaker at the dedicatory ceremonies will be Dr. Donald Guthrie, Chief Surgeon at the Guthrie Clinic and Packer Hospital in Sayre, Pennsylvania.

While the new wing has not received final inspection prior to acceptance from the contractors, it is already in partial use and completion and full operation are expected in the near future.

Following the dedication ceremony the public has been invited to inspect the enlarged and renovated hospital and the visitors will be shown through the building by members of the staff and the Women's Auxiliary.

The new wing, which adds 28 beds to the hospital's capacity, bringing the total to 50, will cost approximately $160,000. In addition some $6,000 has been spent on modification of the existing building and an additional $3,000 on improving the grounds.

Included in the new wing are the Smith-Hines Memorial Nursery, a suspect nursery, a formula room, a bottle preparation room, a central sterilizing room, a laundry, a new kitchen, a staff dining room, a dining room for help, 12 semi-private rooms, a male and a female ward, each with four beds.

Also in the new wing is an isolated obstetrical suite with a labor room, delivery room, scrub-up room, sub-sterilizing room and locker rooms for doctors and nurses.

In the remodeling of the old section, a recreation room for nurses, a directors' room, a room for the Women's Auxiliary's meetings, and private quarters for the night superintendent have been provided on the second floor.

The Kent and Queen Anne's Hospital was originally opened in the summer of 1934, manned largely by volunteer help and its work confined to minor operations. The original section cost $13,000.

An addition, known as the Maxwell Surgical Wing, was completed and opened in May, 1941.

Dr. Guthrie, who will be the dedication speaker, is also professor of Clinical Surgery at the Graduate School of Medicine, University of Pennsylvania. He is a member of the American Surgical Association, Southern Surgical Association, Surgical Research Society, International Society of Surgery and a Governor of the American College of Surgeons. He is also an honorary member of the Royal Hungarian Society, the Royal Academy of Medicine in Rome and the Medical and Surgical Society of Rio de Janeiro.

The Guthrie Clinic, of which he was the founder, is patterned after the Mayo Clinic and maintains a staff of about forty physicians and surgeons, operating in conjunction with the Robert Packer Hospital.

Dr. Guthrie is well-known in Kent as one of the charter members of the Cedar Point Gun Club on East Neck Island. He is a keen sportsman and a lover of the Eastern Shore and has been interested in the growth of the local hospital for many years. He was a class-mate and close friend of the late Dr. Eldridge Eliason.

Library

OSLER FUNDS

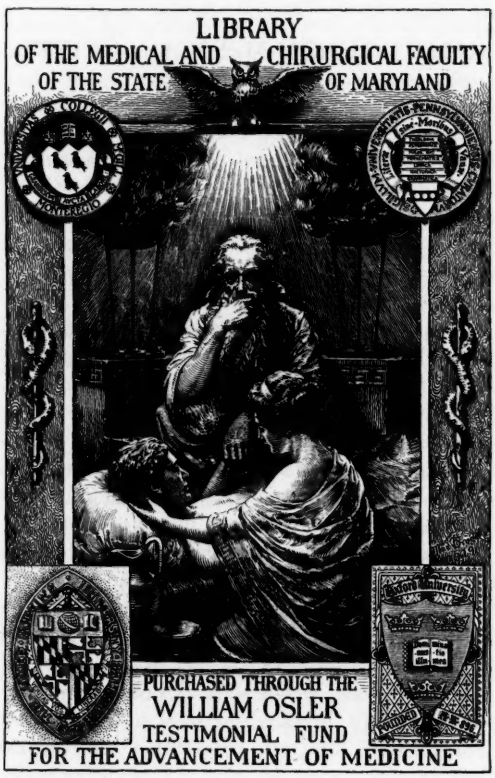
It is our good fortune that the name of Osler will go down to the future generations of the Faculty with his name associated with Osler Hall, the Osler Endowment Fund and the Osler Testimonial Fund.

Dr. William Osler served on the library committee from 1892 to 1905. He witnessed many developments of the library, including expansion from a few thousand old books to 14,590 volumes, the removal from the basement of the old Maryland Historical Society to the new home at 847 North Eutaw Street in 1895 and from a collection of books without supervision to the employment of a trained librarian.

Dr. Osler, in speaking of the approaching centennial, said in 1897: "We can try in the centennial year to attain a proper endowment for the Faculty from our friends among the citizens. We shall need a larger hall, more in keeping with the rank and work of the profession of this city—quarters as complete as our brethren enjoy in Philadelphia and New York. And an endowment yielding a few thousand dollars annually is absolutely essential for the proper development of the library." At the centennial he gave the first thousand dollars toward such an endowment.

The founding of the Charles Frick Section of the library and the financial support of the library given by the Book and Journal Club are attributed to Dr. Osler, who also presented many rare items to the library.

On April 24, 1917, Dr. Henry Barton Jacobs, Secretary of the Osler Testimonial Fund, reported that the money remaining after the building of Osler Hall had been increased to nearly $10,000 by the professional friends of Dr. Osler and that the Committee wished to present this fund to be known as the Osler Testimonial Fund to the Faculty, the income to be devoted to the upkeep of Osler Hall and for the purchase of books for the library in the subjects of most interest to Dr. Osler.



WILLIAM OSLER TESTIMONIAL FUND BOOKPLATE

The bookplate was designed by Mr. Max Brödel

RECENT PUBLICATIONS BY FACULTY MEMBERS

Anderson, G. W., Symposium on cerebral palsy, Part I. Obstetrical factors in cerebral palsy, J. Pediat. **40:** 340–375, March 1952

Angell, J. H., and TeLinde, R. W., Further experiences in culdoscopy, Ann. Surg. **135:** 690–696, May 1952

Arnold, J. G., Jr., The End-results of surgery for protruded lumbar intervertebral discs, Bull. School Med. Univ. Maryland **37:** 3–8, January 1952

Berman, E. F., The Experimental replacement of portions of the esophagus by a plastic tube, Ann. Surg. **135:** 337–343, March 1952

Brady, Leo, An Unusual complication following a Baldy-Webster uterine suspension, Am. J. Obst. & Gynec. **63:** 922–924, April 1952

Bareckson, V. O., and Miller, J. M., Third-nerve palsy with sparing of pupil in diabetes mellitus, Arch. Ophth. **47:** 607–610, May 1952

Feldman, Maurice, and Weinberg, Tobias, Aberrant pancreas: a cause of duodenal syndrome, J. A. M. A. **148:** 893–898, March 15, 1952

Fien, Irving, Proctor, Donald, and Moore, J. E., The Laryngeal manifestations of tabes dorsalis, Am. J. Syph. **36:** 201–230, May 1952

Finkelstein, Ruth, Guttmacher, Alan, and Goldberg, Raymond, A Critical study of the efficacy of jelly as a contraceptive, Am. J. Obst. & Gynec. **63:** 664–667, March 1952

Fisher, A. M., A Method for the determination of antibacterial potency of serum during therapy of acute infections, Bull. Johns Hopkins Hosp. **90:** 313–320, April 1952

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Gareis, L. C., and Ritzenthaler, J. C., Transverse presentation, Am. J. Obst. & Gynec. **63:** 583–591, March 1952

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Kattus, A., Arrington, T. M., and Newman, E. V., Clinical observations on a new oral diuretic 1-propyl-3-ethyl-6-aminouracil and preliminary studies on 1-allyl-3-ethyl-6-aminouracil, Am. J. Med. **12:** 319–330, March 1952

King, A. B., and Gould, D. M., Symmetrical calcification in the cerebellum, Am. J. Roentgenol. **67:** 562–568, April 1952

Kohl, S. G., Kaltreider, D. F., and Davidson, C. W., Unknown intrathoracic complications discovered by routine prenatal chest roentgenography, Bull. School Med. Univ. Maryland **37:** 29–34, January 1952

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Langworthy, O. R., and LeGrand, David, Personality structure and psychotherapy in multiple sclerosis, Am. J. Med. **12:** 586–592, May 1952

Lemkau, P. V., The Mental hygiene of aging, Pub. Health Rep. **67:** 237–241, March 1952

Loch, W. E., and Fischer, N. D., Nasopharyngeal radium treatment, Ann. Otol. Rhin. & Laryng. **61:** 198–205, March 1952

Long, P. H., Paul Ehrlich and modern chemotherapy, Bull. New York Acad. Med. **28:** 344–346, May 1952

Macht, D. I., Botanical test for syphilis and its therapeutic possibilities, Ann. West. Med. & Surg. **6:** 267–269, May 1952

Macht, D. I., and Hoffmaster, Thomas, An Improved method for measuring coagulation time, Science **115:** 91–92, January 25, 1952

McLanahan, Samuel, Watt, C. H., Jr., and Green, J. S., III, The Significance to the surgeon of the roentgen ray flat plate (Scout Film) in the diagnosis of acute abdominal disease, Ann. Surg. **135:** 586–595, May 1952

Mellinkoff, S. M., Tumulty, P. A., and Harvey, A. M., The Differentiation of parenchymal liver disease and mechanical biliary obstruction, New England J. Med. **246:** 729–733, May 8, 1952

Miller, J. M., and Long, P. H., Treatment of antro-oral fistula with particular reference to use of strepto-

kinase and streptodornase, Arch. Otolaryng. **55:** 453–455, April 1952

Miller, J. M., Long, P. H., and Stafford, E. S., Clinical experience with streptokinase and streptodornase in tuberculosis, J. A. M. A. **148:** 1485–1489, April 26, 1952

Penton, R. S., and Brantigan, O. C., The Use of a viable pedicle graft for repairing an extensive tracheobronchial defect, Ann. Surg. **135:** 709–714, May 1952

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Robinson, H. M., Sr., A Short history of dermatology as it progressed in Baltimore, Bull. School Med. Univ. Maryland **37:** 9–24, January 1952

Robinson, R. C. V., and Wells, T. L., Intramuscular chloramphenicol in the treatment of gonorrhea and granuloma inguinale, Am. J. Syph. **36:** 264–268, May 1952

Rudin, L. N., New horizons for the hemiplegic, Current Med. Digest **19:** 21–25, February 1952

Rudin, L. N., and Cronin, D. J., A Mechanical quadriceps, Arch. Phys. Med. **33:** 15–19, January 1952

Rudin, L. N., and Cronin, D. J., Physical medicine in flexion deformity of the knee joint, Arch. Phys. Med. **32:** 729–732, November 1951

Sacks, M. S., [Editorial] ACTH, cortisone and hypersensitive disease states, Ann. Int. Med. **36:** 911–915, March 1952

(Dr. J. E. Schmidt), Hermetet, M. G., The Word doctor, GP **5:** 107–109, May 1952

Schoenbach, E. B., Spencer, H. C., Monnier, Jacques, Treatment of H. influenzae meningitis with aureomycin and chloramphenicol, Am. J. Med. **12:** 263–276, March 1952

Stone, H. B., Danger of implanting tumor cells in human beings for the purpose of "immunization," Ann. Surg. **135:** 753, May 1952

Trimble, I. R., and Morrison, Samuel, Treatment of intractable pain of visceral origin, J. A. M. A. **148:** 1184–1188, April 5, 1952

Whitridge, John, Jr., and Davens, Edward, Are public health maternity programs effective and necessary?, Am. J. Pub. Health **42:** 508–515, May 1952

Wilkins, Lawson, and others, Further studies on the treatment of congenital adrenal hyperplasia with cortisone. I. Comparison of oral and intramuscular administration of cortisone, with a note on the suppressive action of compounds F and B on the adrenal. II. The effects of cortisone on sexual and somatic development, with an hypothesis concerning the mechanism of feminization, J. Clin. Endocrinol. & Metabolism **12:** 257–295, March 1952

Wing, E. S., Jr., and Asper, S. P., Jr., Observations on the use of propylthiouracil in hyperthyroidism with especial reference to long term treatment, Bull. Johns Hopkins Hosp. **90:** 201–227, March 1952

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Zeligman, Israel, Allergic contact dermatitis due to pork corticotropin, J. A. M. A. **149:** 263–264, May 17, 1952

Zellmann, H. E., The Incidence of positive serologic tests for syphilis in the collagen diseases, Am. J. Syph. **36:** 163–166, March 1952

A SPECIAL REQUEST!

The Surgical Section of the Baltimore City Medical Society has a very incomplete roster. It would be appreciated by the members of this Section if each member of the Baltimore City Medical Society who practices surgery would send his or her name and address to Dr. E. Roderick Shipley, 618 Medical Arts Building, Baltimore 1, Maryland.

The Surgical Section will appreciate receiving this information as soon as possible.

Civil Defense

MARYLAND

BRIGADIER GENERAL ROBERT P. WILLIAMS

On Friday evening, April 18, Brigadier General Robert P. Williams, Chief of Medical Services, Civil Defense of Maryland, gave a talk before the Baltimore City Medical Society at its semi-annual meeting at the Medical and Chirurgical Faculty Building, 1211 Cathedral Street.

General Williams stated that Mr. Maurice Evans, of the British Home Office of Civil Defense, in studying the vital statistics of World War II arrived at the conclusion that the number of casualties suffered by London in all of the air bombardments of World War II would total less than those expected from a modern atomic bomb airburst over a large city such as Baltimore. This is the measure of the problem confronting the Medical Service of Civil Defense. London, after a severe raid, usually had several days in which to care for the injured. We must expect more casualties than she had in all of her raids and all of the wounded will be produced at one instant and all will need immediate attention.

To meet this problem, Medical Services of Civil Defense are divided into three large groups: first, the casualty clearing station, the mobile medical unit where the wounded first come under the care of doctors. This station is small, mobile and equipped so as to give emergency surgical treatment, particularly transfusions, treatment of extensive burns and splinting of fractures. The station is mobile so as to permit flexibility and to allow movement of the station to the vicinity of a mass of casualties. In this emergency treatment it is desired to reduce the time lapse between moment of injury and application of surgical procedures. Since the casualty clearing station has no counterpart in ordinary civilian medical service, greatest attention is being paid to the organization and training of these units. At the end of last year there were 59 of these stations, either wholly or partially manned, in Maryland. Since the first of the year, Baltimore City has increased its number from 4 to 45 and is rapidly proceeding with the organization to reach a total of 97. At present it appears that the increase in casualty clearing stations since the first of the year represents more than 100 percent.

Cases that require more extensive surgery or longer hospitalization will be transferred to hospitals. These consist of both existing organizations and emergency hospitals. The goal is eight times the present capacity of our hospitals. Hospital administrators have surveyed their present plans and in most instances find that for emergency periods they can accommodate about twice their normal number. This is by the conversion of assembly rooms, recreation rooms into wards and placing of cots in lobbies and wide hallways. They are surveying other large buildings, particularly colleges and high schools, and planning their use as emergency hospitals. In addition, it is necessary to organize present staffs to serve all of the new installations. Baltimore City hospitals are at present preparing the answers to a questionnaire from the City Medical Director's office.

Finally, there is what Civil Defense calls Essential Community Services. That is, the care of the usual sick and injured, as distinct from those produced by enemy action. After all, a man is just as dead from a neglected appendix as he would be from a neglected bomb injury. Essential Community Services are of extreme importance in three ways: to effect the early return of workers to their duty, to reduce the load of patients in hospitals, and to support the morale of the community. This service will operate mainly on an out-patient basis, using community clinics and with the services of a minimum of doctors and nurses. A great deal of the essential community service will be performed by home nurses trained for this specific duty.

Maryland's Civil Defense Act directed the use of existing organizations to the maximum extent possible. Thus, the State and local health departments formed the framework for Civil Defense

Medical Service. Dr. Riley, Director, Maryland State Department of Health, is the State's Medical Deputy for Civil Defense. Dr. Huntington Williams, the Baltimore City's Commissioner of Health, heads that City's Civil Defense Medical Service, just as county health officers head the service in each of the counties. At the same time, maximum use has been made of the Medical and Chirurgical Faculty and the various medical societies. Dr. Williams has informed me in most enthusiastic terms of the cooperation and assistance which the Baltimore Civil Defense has received from the city's Medical Society. The Turner Committee developed the initial plan for Baltimore City and membership of the medical society is supplying physicians for the hospital expansion program and the city's projected 97 casualty clearing stations. Without this help, the City would never have been able to progress as far as it's gone in the organization of its Civil Defense. It is hoped that the society will continue this support and that as rapidly as possible all members will volunteer their services and urge their assignment in Civil Defense units.

General Williams' talk was followed by the showing of colored motion pictures demonstrating pathology and the clinical problem presented by the atomic bomb and the use of medical services in atomic diaster.

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DEFENSE DEPARTMENT TO SURVEY COUNTRY'S RESEARCH POTENTIAL

Capitol Clinic, A. M. A., Vol. 3, No. 19, May 13, 1952

Approximately 5,000 industrial concerns will be surveyed by Defense Department's Research and Development Board to determine the nation's present and potential research capacity. Included will be pharmaceutical firms, as well as research foundations and private consulting groups. *In medical sciences*, the Board is interested in learning more about research capacity in the following fields: atomic medicine, antibiotics, aviation medicine, bacteriology, dentistry, disease (infectious, tropical, venereal and others), immunology, medical aspects of biological and chemical warfare, medical equipment, neuropsychiatry, pathology, physiology, prosthetic devices, sanitation, shock and transfusion, surgery and toxicology. Defense Department has budgeted $35,000 for the survey, a final report on which is expected at the end of September. Returns will be kept confidential.

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F. S. A. OFFICIALS DISCUSS VOCATIONAL REHABILITATION BUDGET PROBLEMS

Capitol Clinic, A. M. A., Vol. 3, No. 18, May 6, 1952

Henry Viscardi, member of the ODM Task Force on the Handicapped and on the faculty of New York University Medical School, declared the greatest need today "in keeping with the advanced programs of physical medicine and rehabilitation is a changed concept which will place its greatest emphasis on an incentive for the injured worker to return to work." He described as "medieval" the physical standards applied for employment in American industry and commerce and called for a new concept of "changing the job to fit the worker."

Health Departments

DEPUTY STATE HEALTH DIRECTOR*

The Morning Herald, Hagerstown, Maryland, on Wednesday, April 2, 1952, published the following:

Dr. Perry F. Prather, Director of the Hagerstown and Washington County Department of Health, has been appointed Deputy Director of the Maryland State Department of Health. He will assume his new position on July 1.

Dr. Robert H. Riley, Director of the Maryland State Department of Health, in announcing Dr. Prather's appointment as deputy director, said:

"The State Department of Health is fortunate to be able to secure a man of such distinguished service in both the practice of medicine and active work in public health. Dr. Prather brings to his new task a full appreciation not only of the methods and techniques of public health, but of problems and attitudes of the medical practitioner."

Dr. Prather, who has been the city-county health director here since 1947, will succeed Dr. Dean Roberts, who has just been named Director of the Commission on Chronic Illness, a national agency. Dr. Roberts will leave his position with the State Department of Health to take his new post on July 1.

A member of the State Planning Commission on Medical Care and the Governor's Mental Hygiene Board of Review, Dr. Prather has had considerable statewide experience serving on these two boards, which he will bring to the State Health Department.

Dr. Prather also holds the Certificate of the American Board of Preventive Medicine and Public Health, which qualifies him as an expert in matters of Public Health.

The appointment of Dr. Prather was made by the State Board of Health, of which Dr. Riley is Chairman.

He will carry on the work of the Hagerstown and Washington County Health Departments until his successor is named.

Dr. Prather has been a practicing physician in Hagerstown since 1925 until his appointment five years ago as director of health here. Prior to his appointment he had been City-County Deputy Health Officer for a year.

At the time he accepted the full time health post here, Dr. Prather withdrew from the practice of medicine in order to devote his entire time to public health work.

A consultant of the United States Public Health Service since 1940 in its pneumonia preventive program, Dr. Prather is co-author of studies on pneumococcus published by the U. S. Public Health Bulletin.

Dr. Prather had also been editor of the Current Medical Digest, published in Baltimore, for a number of years, since he accepted that post in 1929. As its editor he had kept in close touch with the latest developments in medical science. This medical magazine has a wide circulation among members of the medical profession not only in the United States, but in a number of foreign countries.

He also served a number of years as director of the Washington County V.D. clinic and also as visiting consultant of the V.D. clinic in Western Maryland.

Dr. Prather served in two wars. In World War I he was a Private First Class in the Medical Corps of the U. S. Army, serving 18 months overseas. He was batallion surgeon of the 6th. Batallion Maryland State Guard with the rank of major during World War II, under the command of Col. William Preston Lane, Jr.

Besides his wide activities, first in the practice of medicine, then as health officer, Dr. Prather gave considerable time to civic and governmental service. He served as a member of the Board of Street Commissioners of Hagerstown in the administration of Mayor Reuben Musey, serving as police commissioner for six years. He has been active in Boy Scout work, having been awarded the Silver Beaver award by the Boy Scouts of America for his valuable contributions in service to that organization.

Dr. Prather has been recognized nationally for his work in the public health field. In 1944, he was called to Washington to testify before the United

* Article supplied by W. D. Campbell, M.D., Journal Representative, Washington County Medical Society.

States Senate committee investigating wartime health, and his testimony was quoted by the press throughout the country.

While a practicing physician here, Dr. Prather's first love was public health.

Born in Clear Spring, in 1894, Dr. Prather was educated at Dickinson College and received his M.D., at the University of Pennsylvania Medical School in 1924. He served his internship at the University of Pennsylvania Hospital, coming to Hagerstown in 1925 to begin the practice of medicine.

Dr. Prather was chairman of the Hagerstown Chamber of Commerce Health Committee which twice won for Hagerstown honorable mention in the National Health Contest. He served as president of the Washington County Medical Society, is a Fellow of the American College of Physicians, a member of the Medical and Chirurgical Faculty of Maryland and has held quite a number of other key positions.

Dr. Prather's headquarters beginning July 1 will be in Baltimore, and he plans to take up his residence in that city next fall.

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RELATIONSHIP BETWEEN INOCULATIONS AND POLIOMYELITIS*

Because of widespread discussion and public alarm last year concerning the possible relationship between various types of inoculations and poliomyelitis, the State and Territorial Health Officers Association asked the Public Health Service, Federal Security Agency, to sponsor a study of the question and issue a clarifying statement. Subsequently, the Public Health Service, on March 14, 1952, sponsored a meeting of 41 poliomyelitis investigators, epidemiologists, pediatricians, allergists and health officers. The National Foundation for Infantile Paralysis helped plan and participated in theconference.

The conference voted unanimously in favor of the conclusions contained in the following statement which has been accepted by the Public Health Service and transmitted to official health agencies, to the medical profession and to the general public.

There is no definite evidence that an increase in the number of cases of poliomyelitis has occurred as a result of injections of vaccines, drugs, and other medicinal agents. There is evidence that injections for the prevention of diphtheria, whooping cough and possibly tetanus, when given during an epidemic of poliomyelitis, may, on rare occasions, localize the paralysis in the inoculated arm or leg. There is no satisfactory evidence that other types of injections have any effect on the localization, frequency, or severity of poliomyelitic paralysis. In the small number of persons with localization of paralysis in the inoculated limb, the injections, for the most part, were given about 7 to 21 days prior to onset, which corresponds to the usual incubation period of poliomyelitis. This has raised the question as to whether or not inoculated persons have a greater chance of contracting poliomyelitis during an epidemic.

There is as yet no final answer to this question, but it is a fact that, even if there should be an increased chance, it is extremely small. Many thousands of poliomyelitis cases occur every year among children who have not had any injections during the preceding few months, and thousands of children have received injections for whooping cough, diphtheria and tetanus during poliomyelitis epidemics and have not developed the disease.

Diphtheria, tetanus and whooping cough are serious diseases which can be prevented by immunization. Unchecked, these diseases present a far greater hazard than poliomyelitis. The benefits derived from immunization against these diseases far outweigh the questionably small increased chance of contracting poliomyelitis. However, even this questionable risk can be avoided by carrying out these immunizations when poliomyelitis is not epidemic in the community. There appears to be no good reason for withholding these immunizations during the summer months in communities that are not having an epidemic of poliomyelitis.

Furthermore, poliomyelitis is at all times so rare in infants under 6 months of age, and the danger from other infectious diseases, particularly whooping cough, is so great, that it is advisable to continue the immunization procedures for this age group even during a poliomyelitis epidemic. In adults also, poliomyelitis is relatively so infrequent, that when there is a need for immunizing or therapeutic injections, such injections should not be withheld.

* Federal Security Agency, Public Health Service, National Institutes of Health.

Certainly no parent should object and no physician should hesitate to administer a needed antibiotic, drug or other injection for treatment of disease at any time. When there is immediate danger from diphtheria, whooping cough or tetanus, the preventive inoculations should be given to all threatened age groups even during a poliomyelitis epidemic. In the final analysis the decision as to when an immunizing or therapeutic injection shall be given to an individual patient must rest with the physician.

R. H. Riley

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U. S CHAMBER OF COMMERCE ADVOCATES DRAFT DEFERMENTS FOR MEDICAL STUDENTS

Capitol Clinic, A. M. A., Vol. 3, No. 18, May 6, 1952

At its annual meeting here, *U. S. Chamber of Commerce* went on record in support of Selective Service, rather than Universal Military Training, as the best and most economical method of supplementing voluntary entry into the armed forces. At the same time, the Chamber stated that any induction system should permit deferment of sufficient numbers of medical students and those conducting research in medicine. On the question of UMT, the Chamber's board of directors voted to conduct a referendum among member organizations. The Chamber has supported the principle of UMT for many years.

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SENATE COMMITTEE APPROVES CONTINUATION OF SPECIAL PAY FOR DOCTORS

Capitol Clinic, A. M. A., Vol. 3, No. 18, May 6, 1952

The full Senate Armed Services Committee has approved *S.3019*, introduced by Senator Lester Hunt (D., Wyo.), which would extend from September 1, 1952, to July 1, 1953, authorization under which Armed Services and Public Health Service physicians and dentists receive a *special payment of $100 per month.* The effect of this is to separate the physician-dentist special pay issue from the question of incentive and hazard pay for submarine service, flying and similar duty. Now the Senate will have an opportunity to vote on special doctor-dentist pay without reference to the other questions. In addition to continuing the extra pay for physicians and dentists, Senator Hunt's bill would extend it to retired regular officers who return to active duty and to physicians or dentists inducted by Selective Service under the Doctor-Draft Act and subsequently commissioned.

STATE OF MARYLAND DEPARTMENT OF HEALTH

MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4 Week Period, May 2–29, 1952

	CHICKENPOX	DIPHTHERIA	GERMAN MEASLES	HEPATITIS, INFECT.	MEASLES	MENINGITIS, MENINGOCOCCAL	MUMPS	POLIOMYELITIS, PARALYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPHOID FEVER	UNDULANT FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORRHEA	OTHER DISEASES	DEATHS: Influenza and pneumonia
Total, 4 weeks																		
Local areas																		
Baltimore County	35	—	10	2	99	1	3	—	—	20	—	—	2	13	—	14	—	5
Anne Arundel	18	—	4	—	27	1	10	—	—	11	—	—	1	6	—	2	m-4	2
Howard	2	—	—	—	1	—	—	—	—	1	—	—	—	3	—	—	—	1
Harford	9	—	22	4	21	—	6	—	—	5	—	1	1	2	—	2	m-3	—
Carroll	14	—	1	—	38	—	8	—	—	1	—	—	—	2	—	—	—	2
Frederick	5	—	2	—	22	—	13	—	—	11	—	1	1	3	—	1	—	3
Washington	3	—	1	—	44	1	1	—	—	—	—	—	—	4	—	3	—	1
Allegany	—	—	—	—	2	—	—	—	—	2	—	—	—	3	—	—	—	2
Garrett	1	—	10	—	18	—	—	—	—	—	—	—	7	—	—	—	—	—
Montgomery	7	—	9	2	32	1	3	—	—	3	—	—	—	24	1	—	m-1	2
Pr. George's	10	—	15	—	20	—	7	—	—	5	—	—	—	9	1	—	—	3
Calvert	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—	—	—
Charles	—	—	—	—	4	—	1	—	—	—	—	—	—	—	—	—	—	—
Saint Mary's	2	—	1	—	7	—	—	—	1	—	—	—	1	3	—	—	—	1
Cecil	—	—	—	—	1	—	—	—	—	2	—	—	—	5	—	3	—	1
Kent	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Queen Anne's	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Caroline	—	—	—	—	1	—	—	—	—	—	—	—	—	6	—	2	—	—
Talbot	—	—	—	—	2	—	—	—	—	1	—	—	—	1	—	—	—	—
Dorchester	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—
Wicomico	1	—	3	—	36	—	—	—	—	1	—	—	—	2	1	15	—	—
Worcester	1	—	—	—	3	—	—	—	—	—	—	—	—	1	1	—	c-1	—
Somerset	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	5	—	—
Total Counties	109	0	79	8	382	4	52	0	1	68	0	2	13	88	4	48		23
Baltimore City	239	0	51	12	272	4	32	0	0	53	0	0	13	112	9	518		14
State																		
May 2–29, 1952	348	0	130	20	654	8	84	0	1	121	0	2	26	200	13	566		37
Same period 1951	383	1	226	19	1051	3	488	1	7	107	2	3	29	225	38	557		37
5-year median	428	11	70	—	655	11	180	1	7	98	2	3	70	238	106	530		39
Cumulative totals																		
State																		
Year 1952 to date	2334	5	697	122	8611	58	657	7	1	722	8	11	102	1183	74	2755		382
Same period 1951	2282	26	663	120	2641	34	2934	11	8	616	8	12	265	1128	160	2889		300
5-year median	2683	119	317	—	2472	76	853	2	8	769	10	23	519	1203	642	2846		392

c = congenital syphilis under 1 year of age.
m = malaria contracted outside the U. S. A.

BLUE CROSS AND BLUE SHIELD

BLUE CROSS

R. H. DABNEY*

Blue Cross service benefits are unique.

By service benefits we mean benefits which are in terms of hospital service, rather than a cash indemnity, and are guaranteed by the participating hospitals through contractual arrangement between hospitals and the Plan. This is an agreement with the subscriber and the Plan, listing benefits to which the subscriber is entitled, such as, room, meals, general nursing care, operating room, anesthesia, drugs and other customary hospital services in a semi-private room, for 21 days.

When a subscriber has occasion to be hospitalized he may choose any member hospital of the Plan subject to his physician's referral. Upon admission to the hospital he presents his Blue Cross identification card and no further credit reference is required by the hospital. Upon discharge he is billed by the hospital for only such special services which may not be included in his Blue Cross contract, his eligibility for care having been confirmed by the Plan during his stay.

The service benefit principle of Blue Cross works to the advantage of the subscriber in several ways. First, his Blue Cross card serves as an adequate credit reference upon admission to the hospital. Second, he need not lay out cash for the whole hospital bill. Third, the benefits are more liberal since certain hospital services are provided regardless of cost. Under the Blue Cross service benefit contract, hospital care is available to subscribers in member hospitals to the extent that it is needed without being restricted to a limited number of dollars per day. This is an important factor because no one individual can foresee when he will need care or what it will cost.

In these days of inflation Blue Cross is more valuable than ever before. Hospitals too have reflected the effects of these inflationary times. Nationwide, it is estimated that expenditures of all hospitals increased 215 per cent between 1940 and 1949 while the number of patient days of care increased only 20 per cent. These expenses must be passed on to the patient. Through service benefits the subscriber can be guaranteed complete coverage of his bill regardless of the rise in hospital costs. Blue Cross is buying hospital services at ever rising prices and still giving the same benefits instead of just a certain number of dollars which may or may not cover the bill.

Aside from the patient, Blue Cross means much to the hospital. It is the hospitals' credit agency and thus helps the hospital make available to the community its full facilities.

The hospital has a duty to its community and never turns away a person needing care. Its primary obligation to society is to make available to the ill all services possible. However, this cannot be done without adequate funds. It was precisely this situation that brought about the development of Maryland's Blue Cross in 1937. The hospitals created this Plan as a means to continue to give the community the best of care and to afford it a way to pay for that care.

P.S. *The best patient is a worry-free patient and such a patient is a Blue Cross member.*

* Executive Director, Maryland Hospital Service, Inc., Maryland Medical Service, Inc.

Hospital News

TRENDS IN HOSPITAL OUT-PATIENT CARE

MERRELL L. STOUT, M.D.* AND MRS. PAULINE NEWELL†

There are offered in this paper certain observations concerning 600 consecutive patients who recently presented themselves for care in the Out-Patient Department of the Hospital for the Women of Maryland.

The Hospital for the Women of Maryland is a general hospital for white women in a residential section of Baltimore offering medical, general surgical, gynecological and obstetrical care, which in 1951 had approximately 15,400 visits to its out-patient department.

At the outset a word should be said regarding the general policy of our clinic on eligibility. We start with the assumption that the average family with a "normal" amount of illness can and does afford private medical care for itself. It has a family physician to call upon when illness overtakes it. Recent census figures show that the average household in Baltimore has an annual income of $3,218.00 per year, or about $62.00 a week. Although we have not make a statistical study of our cases, it would appear that the majority of patients applying for dispensary care here at this time falls into this category, or slightly below it.

Rather than set up a rigid scale for measuring patients' eligibility by income, we have preferred to consider applications on a case by case basis, as determined by the patient's statements on her written application, which is supplemented, when time permits by an interview with an experienced social worker.

We have assumed that a typical family of two parents and two children, whose income is below the $62.00 a week average, is eligible for dispensary care when they request it. The standards set up for medical indigency by the State and City are admittedly too low and too rigid to be realistic. There, for instance, a family of four must have an income of less than $40.00 a week to be eligible for free or part-free out-patient care. In the hundreds of cases we have interviewed in the dispensary we have found very few who have been able to save anything beyond minimum insurance payments on wages of $40.00 to $62.00 a week. The large majority of younger families with children are heavily in debt. Hence, even though they may be insured for hospitalization, there is no margin for medical care on an out-patient basis. They can usually pay for medicine and dispensary visits out of current income, but sometimes require special help for X-rays or special treatments.

In passing upon applications for dispensary care we consider, in addition to income (a) prognosis for economic improvement, (b) patient's resources, debts and obligations, including hospitalization insurance and (c) availability of medical care elsewhere. We always accept patients needing emergency treatment and patients referred to us by private doctors if our facilities meet the requirements of the case. In the case of patients with hospitalization insurance we explain what they can get under their coverage and if they have medical fee coverage we encourage them to take advantage of it. However, hospital insurance does not solve the problem of expensive out-patient treatments; in fact, keeping up premiums lessens the amount a patient has for same. For the large majority of applicants the fact of hospital insurance does not figure much in their wish for clinic care.

Our fees for a first examination are two and three dollars, depending on the type of case, surgical or

* Director, Hospital for the Women of Maryland.

† Chief Social Service Worker, Hospital for the Women of Maryland.

medical. The social worker is authorized to lower or waive payment of fees in cases of apparent hardship. For some of these cases in the lowest income brackets the hospital is partially reimbursed under the Medical Care Plan of the State of Maryland and the City of Baltimore.

We have many applications for dispensary care from families whose income is over the "average". Three factors bring them to us instead of a private doctor's office:

(1) Above "average" need for medical care. These are the patients who have a family doctor for usual illnesses, but who cannot afford a specialist, or the ones whose illnesses are chronic, or require expensive diet, drugs or treatments.

(2) Exceptional financial burdens or family problems. This group includes people who have been subject to unusual accidents, loss or illness or who, though normally in better circumstances, are going through a period of readjustment such as divorce, separation or reunion by reason of military service, and the like. They also include a group of unstable people such as the alcoholic who earns well but fails to support; the unmarried mother unable to go to her family for help, etcetera.

(3) Preference for clinic care over private care: The majority of this group come because they want a "thorough examination" or a "complete check-up" which they have not been able to get, or think they could not get, from their family doctor. They are "willing to pay whatever we ask"—most of them seem to have given little thought to the fact that they are asking for a subsidized service, and that they are not paying full costs. They come because they have confidence in the clinic procedures. They express appreciation for the time given them, for the interest shown, for the possibility of complete diagnostic work under one roof (the fact that they may have to see different doctors, as the house men rotate to various services, does not trouble them—they still think they get better care). Among this group are a number of malcontents and neurotics who must "shop around", because—even though having been told many times that they have no physical disease needing treatment, they are still sick. (May we add that quite a few of these settle down here!). There are a few, like minister's wives and wives of students, who could go to private doctors and receive professional courtesy, but who prefer to come to clinic and pay for what they require. There are also many who have been educated to want more than they are getting in the office of their private doctor, e.g. "I have asked my doctor why I cannot have children and he just laughs me off". "I was told that bleeding was a danger sign and asked for a pelvic examination. The doctor put me on the table with my corset on—and I don't think I had a thorough examination" . . . etectera.

In the case of people in the category of being able to pay private fees but preferring clinic care, we try to refer them to a private doctor if they have none. If they have a family doctor we urge them to consult him about a referral to us or to a specialist or private clinic. We only accept patients from this category if it seems that real harm could be done through lack of immediate attention.

Now with regard to the 600 patients mentioned in our series, a questionnaire was devised for new patients and those returning after a lapse of at least a year, which went carefully into the family financial status, type of insurance carried, etcetera, and asked the specific question "Why are you coming to this clinic rather than going to a private physician?" The answers were somewhat startling, since out of the 600 queried, only 375 or 62.5% stated that they could not afford a private physician and the remaining 225 or 37.5% of the total said that they frankly preferred clinic care. With persuasion on the part of the social worker, 69 of these women were referred to men on our visiting staff, or returned to their family doctor, while 156 remained firm in their choice of the clinic, and were accepted as being at least on the borderline of eligibility.

It is interesting to note further that of the 375 considering themselves medically indigent (which opinion was concurred in by our social worker) only 134 or 36% had previously been to a private doctor during the past year, while almost 100% of the other group had had recent experience with a private physician.

Investigation of the prevalence of insurance in

the two groups revealed the following figures: Among the 375 medically indigent patients 158 (42%) had Blue Cross, 27 (7%) Blue Shield and 52 (14%) commercial insurance, while in the 225 preferring clinic care—of which 69 were referred to a private doctor—133 (59%) had Blue Cross, 31 (14%) had Blue Shield and 35 (15%) had commercial coverage

An analysis of the reasons given above why these people preferred clinic to private care was revealing. Far and away the most frequent answer was to the effect that the private physician keeps the patient returning to his office frequently without seeming to do anything for her. Numerous responses seemed to indicate that the patient desired a thorough examination and was often simply given some medicine and told to return later. Several patients expressed the opinion that they preferred the clinic because they then would not have to go first to one doctor for a blood test and then to another for an X-ray, etcetera. Quite a number really seemed to have a grasp of what group medicine means in that they felt more secure in a place where they knew the physicians (though relatively young house officers) were attempting to be specialists in their chosen fields and recognized the team work principle which is the keystone of group practise. These were also those who frankly stated that they thought the younger man, when in doubt, would call more frequently for help and consultation in obscure cases. Of 375 medically indigent cases 134 stated that while they could afford and wanted "ordinary medical care" from private physicians, they could not afford specialists' fees and, therefore, came to the clinic for help. As a matter of fact, 54 of the 134 were definitely referred by private physicians for that reason.

From the above it would certainly seem that the main reason for applying for clinic care is financial stress. It would likewise appear that while the "relief" offered by hospitalization insurance has little effect, the carrying of Blue Shield tends to incline the patient toward private care.

On the other hand, the 156 cases who were borderline financial problems but who preferred the clinic and could not be persuaded to go elsewhere, 70% of the total preferring Clinic Care) deserve some thought. For while, of course, it may very well be that there are some "chiselers" in this group, one cannot help but feel that a little more patience on the part of the private practitioner and a little more thoroughness would have kept some of these patients away from the clinic, especially since our records show that many of these patients have been to private practitioners who are known to have very busy office practices.

In conclusion, it would still seem that there is a definite place for both clinic and private practice in our community and that the two should try to work more as a team and less as rivals in "guarding the health of Baltimore."

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70% OF FEDERAL CIVIL DEFENSE FUNDS GO FOR MEDICAL PURPOSES

Capitol Clinic, A. M. A., Vol. 3, No. 17, April 29, 1952

Approximately *70%* of all federal money spent on civil defense is going for ***medical purposes***, principally matching grants to states for local medical stockpiling and all-federal regional stockpiles. This breakdown of Federal Civil Defense Administration activities is contained in Administrator Millard Caldwell's annual report, covering the first full year's operations of FCDA. So far FCDA appropriations for all purposes have totaled about ***$100 million***. Of this, ***$50 million*** is earmarked for all-federal medical purchases. ***$20 million*** will be used either for federal medical purchases or matching grants to states.

Woman's Auxiliary to the Medical and Chirurgical Faculty

MRS. GEORGE H. YEAGER, *Auxiliary Editor*

ANNUAL REPORTS FROM THE COMPONENT PRESIDENTS

BALTIMORE CITY, MRS. H. HANFORD HOPKINS

During the past year the speakers at our meetings have discussed various current health problems. Dr. Lillian Davis, Director of Health Education in the Baltimore City Schools, explained "The Narcotic Situation in the Schools." Dr. John Krantz spoke on "Physicians, Potions, People and Their Purses." At a subsequent meeting Mr. John Paine of the Baltimore Good Will Industries, gave us "Good Will the American Way," and at the Annual Meeting Mrs. Harold F. Wahlquist, National President, Woman's Auxiliary to the American Medical Association, spoke on "Working Together for Health."

It has been an interesting year for the Woman's Auxiliary to the Baltimore City Medical Society!

BALTIMORE COUNTY, MRS. MARTIN E. STROBEL

As a result of the Doctor's Day Dance held in March, 1951, we were able to finance our first Nursing Scholarship. The recipient of the scholarship, Miss Patricia Lefell, of White Hall, Maryland, is now in training at the University Hospital.

An exhibit was held at the Maryland State Annual Fair at Timonium, Maryland, during its eleven-day program from August 29, to September 8, 1951. Approximately 14,000 pieces of literature were distributed. These pamphlets were titled, "What about This Doctor Shortage" by Dr. Paul de Kruif, and "Socialized Medicine is No Bargain" by William L. Hutcheson, Vice-President of the American Federation of Labor. Three films were shown. One was on narcotics addiction, another was on the use of animals in medical research, and the third showed the disadvantages of socialized medicine.

We are having four meetings a year. Mrs. George E. Urban, our former President, entertained our Auxiliary at her home in December with a most enjoyable Christmas party. At the February meeting, a motion picture entitled "Breast Self-examination" was shown through the courtesy of the Baltimore County Chapter of the American Cancer Society. Dr. William H. F. Warthen, Health Officer of Baltimore County, was present and conducted a discussion of the film.

Our Second Annual Doctor's Day Dance was held on March 29, 1952, for the benefit of a second Nursing Scholarship.

FREDERICK COUNTY, MRS. A. AUSTIN PEARRE

In the Autumn of 1951, when clubs and organizations were beginning to make plans for the coming year, the Woman's Auxiliary to the Frederick County Medical Society was slow in getting under way.

Mrs. Howard Ash, our very capable President, was preparing to move away from Frederick, so there was no May meeting and no election. The credit for our re-organization should probably go to the Washington County Auxiliary because late in October an invitation came for us to join them for a dinner meeting at the Fountainhead Country Club in Hagerstown. Twelve doctors' wives from Frederick went over for this very delightful affair and enjoyed a most interesting program.

Now that we are organized again, we are working with Student Nurses, whom we claim as our particular project just now. We have also given funds to the Nurses Medical Library.

It seemed we must wait until the first of the year to begin our serious work, but we did send the Nurses' Home, at Christmas time, a large painted tray filled with cookies donated by the members of the Auxiliary. An attractive addition to this gift was a center grouping of choir boy figurines, the artistic work of Mrs. Talbot Brice, one of our members.

During January and most of February all efforts were bent toward a fund-raising fashion show luncheon, which was held at the Francis Scott Key Hotel on February 20th. It was our pleasure to have as our guests at this time the President of the State Auxiliary, Mrs. George H. Yeager, and the State Chairman for Revisions and Resolutions, Mrs. Amos R. Koontz. These luncheons have become an integral part of the social life of the community, with tickets greatly in demand. The proceeds from this show amounted to $212.50, to which we will add whatever we obtain from a benefit showing of the British film "The Lavender Hill Mob."

On March 25th, when Governor Theodore R. McKeldin presented to Dr. J. Albert Chatard, who represented the Faculty, a scroll proclaiming March 30th as Doctor's Day in Maryland, the President and Publicity Chairman of the Frederick County Auxiliary were present. A news article subsequently appeared in our local papers concerning Doctor's Day.

At the close of our February meeting we were joined for tea by the President of the Hospital Board, the Superintendent of Nurses and the Director of Nurses, whom many of our members had never met. The compliment was returned on April 17th, when the Student Nurses Association entertained us at a delightful tea, honoring the Auxiliary along with members of the Board of Managers! We like to feel that our project has thus contributed toward the warm feeling which exists between the Student Nurses and the Auxiliary.

Success in this effort encourages us to feel that during the coming year, we can effectively broaden the scope of our activities.

MONTGOMERY COUNTY, MRS. JAMES P. KERR

Our two main objectives for this year were, our "Membership Drive," which was very successful, bringing our total to thirty-six. Our second aim was a "Nurse Recruitment" Program to establish a Nurse Scholarship. We decided to serve a luncheon at our monthly meetings. This is managed by two hostesses and a co-hostess. Each member pays for her lunch, however, and the profit is put into a fund for a scholarship. At present our total is $200.00, which we think is a good start in the right direction. Our luncheons have served a two-fold purpose in that we have a social hour before the business session, which helps since we are widespread over a large county, and, also, we have stimulated new interest in that we have activity and objectives.

We follow the State programs as suggested and also have had excellent speakers at our meetings.

We have been invited to be luncheon guests of the District of Columbia Woman's Auxiliary in order to become acquainted with our neighbors.

All in all, I feel we have had a most enjoyable and successful year.

PRINCE GEORGE'S COUNTY, MRS. S. JACK SUGAR

The Woman's Auxiliary to the Prince George's County Medical Society has an enrollment of forty-two. The meetings are held monthly from September to June. New officers are elected in May. This procedure allows the new president a chance to appoint committee chairmen and start effectively organizing new activities before the group disbands for the summer.

An attempt is made to vary the type of program, entertainment and meeting places. Some meetings are held in the members' homes, as luncheon or dessert meetings. Others are held in the Doctors' Conference Room at the Prince George's Hospital. Mrs. George H. Yeager, President of the Auxiliary to the Medical and Chirurgical Faculty of Maryland, was the guest speaker at our opening fall meeting in September.

In October, a group of members representing the Auxiliary, donated blood to the Red Cross Bloodmobile. Several members give many hours each week to work with the Bloodmobile and other Red Cross activities. A number of our members belong to the Prince George's Hospital Guild and work in varying capacities in the Hospital. In May, 1951, the sum of $100.00 was donated to the County Health Drives.

Our biggest public relations project of this year is to sponsor a 3-year Nurse's Scholarship to a deserving girl who will graduate from one of the County High Schools this spring. Mrs. W. B. Moyers, Chairman of this Committee, is working with the Superintendent of the County Board of Education to help to find us the right girl for our scholarship. The fund is $250.00 and the money has already been raised by our hardworking Ways and Means Committee. We sincerely hope that the young lady will return to Prince George's County to

practice her profession, as our Hospital is desperately in need of nurses.

Subscriptions to "Today's Health" have again been sent to the Supervisor of Health Education in the County Board of Education for her work in the schools.

At our Christmas party, a special committee collected food, clothes and money to care for a motherless family of six children and an invalid father. The Auxiliary adopted this family, and parcels of food are taken to them from time to time. At the same time, several bundles of clothes and toys were given to the County Welfare Board to be distributed among needy families.

By the end of this year, the Auxiliary will have had five luncheons, a Christmas party, a benefit luncheon and fashion show, and a benefit tea. The members take turns, in groups, as hostesses at all meetings, and a feeling of congeniality and friendship exists within the group.

The Auxiliary policy of collecting drug samples and medical periodicals to send abroad has been continued this year.

There is a genuine feeling of co-operation between the Medical Society and the Auxiliary. Our common interest in the Prince George's General Hospital brings us closely together, as both our husbands and members are active in the support of this institution. When the new wing of 125 beds was opened in May 1951, the Auxiliary members were asked to assist as Guides for the public. This year, the Auxiliary again contributed $100.00 for Medical Journals and Books to the Doctors' Library in the hospital.

Doctor's Day was celebrated on Monday, March 31st. The Auxiliary and Mr. Harry W. Penn, Jr., Superintendent of the Hospital, invited all the doctors in the County and on the Hospital Staff to a buffet luncheon at the Hospital. All doctors entering the Hospital that day were pinned with red carnations by Auxiliary members. Several County and Washington newspapers carried publicity on our Doctor's Day Program, both before and after the celebration.

The legislative chairman has kept members informed on pending legislation. In April, our Auxiliary was invited to meet with the Auxiliary of the District of Columbia Medical Society to hear former Congressman Jennings Randolph speak on "Our Obligations as Voters."

Our meetings and benefit affairs have been covered in the County and Washington newspapers. Information concerning our activities and affairs have been sent to the State Publicity Chairman for use in the Journal of the Medical and Chirurgical Faculty of Maryland.

WASHINGTON COUNTY, MRS. S. ROBERT WELLS

Our total membership is fifty-nine, a gain of nine members over last year. We have thirty-six "Bulletin" subscriptions, and six "Today's Health" subscriptions. The new "Today's Health" Chairman plans to contact each doctor and ask him to subscribe at the full rate so that we may retain one-half the subscription rate toward a Nursing Scholarship. A "Today's Health" exhibit (mobile unit) was shown at the state meeting of the American Academy of General Practice, to be held in Hagerstown, on May 15th. We have received *full* newspaper coverage on every activity of the local chapter of the Auxiliary, as well as partial coverage on state and national activities. Our radio publicity on "Doctor's Day" was outstanding.

Under the supervision of the Chairman, during the Cancer Fund Drive, between forty and fifty women staffed the main Collection Booth downtown. Literature and drugs are being collected and sent for overseas use. As a matter of fact, all our members are doing their part in Public Relations, and are very active in community and church affairs.

Our Committee on Nurse Recruitment is working with the Superintendent of Nurses at the Washington County Hospital. A pamphlet entitled "Nursing —Is It Your Career?" has been placed in all the Junior and Senior High Schools, where we shall from time to time place further information. A tea and a tour of the hospital has been given, and two more are planned for girls interested in nursing as a career. At our April meeting we voted to establish a nursing scholarship, the full cost of which will be underwritten by our members.

Our program has included an October joint dinner meeting with Frederick County, at which the election of officers was held.

In a January Tea meeting at the Art Museum, we

installed the new officers and discussed Nurse Recruitment and our March Safety Drive.

In April we had a dinner meeting at the Hotel Alexander on Civil Defense, with movies and a lecture on atomic bomb defense by Dr. Ernest F. Poole, Deputy Director of the Medical Service, Washington County Civil Defense. There was also discussion of a Nurses' Day Tea for prospective nurses, and announcements of the state meeting.

Since we are a rather new group, we have only just reached the point at which a Ways and Means Committee is necessary. Our nursing scholarship will require us to raise $710.00 within the next three months. Therefore, we are at present earnestly studying various methods of raising money.

PROGRAM PLANNING

The Woman's Auxiliary to the Medical and Chirurgical Faculty will appreciate very much any invitations from our Component Auxiliaries to the State President, Mrs. Charles H. Williams, to attend one of their meetings next fall or winter. Whether Mrs. Williams actually participates in the program is not as important to us as the maintenance of personal contact. Such contact accomplishes much more than is possible through correspondence and thereby benefits the State as well as the Component Auxiliaries.

LEGISLATIVE LIGHTS

MRS. H. HANFORD HOPKINS

The following are just a few of the very numerous Bills on Health Legislation which are pending: S 2705, which would amend the Social Security laws and provide permanent and total disability insurance and rehabilitation benefits. H.R. 6215, for rehabilitation of the handicapped. H.R. 6720, to provide Federal Aid to States for school programs of health instruction and physical education. S 445 for "Aid" to local public health units. H.R. 7484, which amends Federal Old Age and Survivors Insurance system to provide aged persons and also the *dependents* and *survivors* of the deceased insured persons, with insurance against the cost of hospitalization.

News releases from the Federal Security Administration itself, however, have stated that "A greater proportion of births in the United States were delivered in Hospitals and Institutions in 1947 than in any previous year on record." Maternal Mortality decreased to a new low. "Infant mortality in 1947 was the lowest on record." "Length of life is nearly two years above the level reached before World War II—and finally, the death rate in 1948 was the lowest in the history of the country."

In presenting these Health Bills which are pending, compare them with the quoted Federal Security Administration news release and ask yourself if it makes for logic to exchange our present admittedly successful health system for another which is experimental and dangerous? Are we satisfied with this piecemeal socialization of medicine which is pending and may be gradually enacted? We must be, or more of us would write to our Congressmen, talk to our friends and get out and vote!

AUXILIARY NEWS

The Nursing Committee of the Woman's Auxiliary to the Medical and Chirurgical Faculty thoroughly enjoyed meeting the representatives of the Nursing Profession who attended our Nurses' Day Tea, on May 12th, Florence Nightingale's Birthday. The Tea was held at the Medical and Chirurgical Faculty Building, and we are especially indebted to the Component Presidents such as Mrs. S. Robert Wells, of Hagerstown, for instance, who came *by bus* and brought the Washington County Auxiliary's scholarship student nurse with her. Component Presidents acted as Hostesses and it was most exciting to talk to our own "scholarship" girls. We also were proud to learn that among our distinguished guests were the Deans and Directors of Nursing Schools, Presidents of Nursing Associations, etc., and several doctors' wives.

Our "Famous Family," the E. Paul Knotts, can boast of Dr. Knotts, "Family Doctor of the Year," Mrs. Knotts, Doctor's Day Chairman, who secured the Governor's Proclamation of Doctor's Day for us, and a gifted daughter, Elizabeth Knotts Davison, whose paintings added so much to our Creative Arts Show!

The wonderful news that the daughter of Dr. and Mrs. Jack H. Beachley, of Hagerstown, will marry the son of Dr. and Mrs. S. Robert Wells, seems to carry out the Auxiliary purpose of "promoting friendship among physicians' families" thoroughly. Our very best wishes!

Mrs. Martin Strobel, President of the Woman's

Auxiliary to the Baltimore County Medical Association has been appointed to the Board of Directors of the Baltimore County Public Health Association. Also, Mrs. George H. Yeager, Auxiliary News Editor, is now on the Board of the Maryland Society for Medical Research.

We think that the Chairman of our Creative Arts Show, Mrs. Beverley C. Compton should be congratulated upon her own paintings, as well as on her successful management of that fine exhibition.

CAMPAIGN POINTERS

The fact that Governor Warren of California has been proposed as a running mate for General Eisenhower should give us caution. Warren is an outspoken proponent of socialized medicine. As Auxiliary members we ought not to vote without finding out, from past performance rather than from vague promises, where a man stands in regard to integrity and the will to fight for the right rather than to just "go along" pleasantly, whether he puts America's interests first or last, and where he stands on domestic issues such as socialized medicine, socialized housing, and socialized education, which are designed to change our form of government.

ARE YOU REGISTERED TO VOTE?

MRS. A. S. CHALFANT

Citizens who are displeased with the manner in which our Country's affairs have been conducted in the last four years have only themselves to blame if they have not voted regularly. If these people, who are eligible to vote, care so little about their right to self-government as free citizens, then the governing will be done by power hungry men who believe that they know better what is good for us than we do ourselves.

The percentage of those citizens eligible to vote in this country who actually did vote in the last Presidential Election was appallingly low! Proportionately, nearly twice as many people voted in Italy in their big election. The Italians defeated Communism and prevented their country from losing its freedom. As a result of our indifference, we have witnessed, here in America, a "creeping Socialism" which if continued would inevitably lead us to a Totalitarian Socialist state.

History must *not* be allowed to repeat itself this November! We must know where the candidates stand on vital issues and we must vote. We must influence our families, our friends, and our neighbors to register and to vote.

In Baltimore, July 14th is the only day for local precinct registering. *However, you may register* at the Court House until *six weeks before the November election.* The Office of the Supervisor of Elections is open from 9:00 A. M. to 3:00 P. M., Monday through Friday, and from 9:00 A. M. to noon on Saturday.

In the Counties, The Court House at the County Seat is the place to register.

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SENATE COMMITTEE INCREASES PHS APPROPRIATION BY ALMOST $4.5 MILLION

Capitol Clinic, A. M. A., Vol. 3, No. 17, April 29, 1952

In reporting out the Public Health Service Appropriation bill for next fiscal year, Senate Appropriations Committee increased the total $4,462,000 over that recommended by the House. Some of the substantial increases include: *National Cancer Institute,* $14.3 million allowed by Senate Committee, or $2.6 more than House figure; *Mental Health Activities,* $10.7 million or an increase of $194,000 over House figure; *National Heart Institute,* $12 million, or $2.4 million increase over House figure. The Senate Committee cut PHS funds for general assistance to states to $15.1 million, a reduction of $220,000 under the House figure. The Senate Committee accepted the House figure of $75 million in new funds for the *Hill-Burton* hospital construction program. After passage of this bill by the Senate, final figures will have to be worked out in a Senate-House conference committee.

Ancillary News

DENTAL SECTION

BALTIMORE CITY DENTAL SOCIETY

A. BERNARD ESKOW, D.D.S.

On April 14, 1952, the Baltimore City Dental Society had as its guest essayist Dr. Maury Massler, Professor and Head of Department of Pedodontics in the College of Dentistry and Lecturer in Stomatology and Oral Medicine in the College of Medicine, University of Illinois. His subject was "Management of Oral Habits in Children". His presentation was most informative and very well received.

The May meeting of the Baltimore City Dental Society was its annual business meeting. It was preceded by a dinner at the Sheraton Belvedere Hotel in honor of our retiring president, Dr. Paul Deems. The Executive Council noted the occasion by presenting Dr. Deems with an engraved silver dish as a token of their esteem and regard for his services to the Society. The election of officers which then took place at the Medical and Chirurgical Building were as follows:

Dr. Arthur S. Wheeler, *President;* Dr. William Kress, *President-Elect;* Dr. Carl Schultheis, *Secretary;* Dr. E. D. Lyon, *Treasurer;* Dr. I. Abramson, Dr. R. J. King, Dr. Filbert Moore, *Executive Council* (3 years).

Dr. Deems presented the incoming President, Dr. Wheeler, with the president's gavel. The new officers were introduced to the society and the meeting adjourned.

PHARMACY SECTION

MARYLAND BOARD OF PHARMACY

L. M. KANTNER, PHAR. D., *Secretary*

On April 26, last, a law became effective, the provisions of which regulate the filling and refilling of prescriptions to a greater extent than any legislation since the enactment of the Harrison Narcotic Act.

This law, known as the Durham-Humphrey Act, places drugs into two categories—namely, those that can be sold without a prescription and those that can be dispensed only on a prescription.

The law reads in part thus: "A drug intended for use by man which because of its toxicity or other potentiality for harmful effect, or the method of its use, or the collateral measures necessary to its use, is not safe for use except under the supervision of a practitioner licensed by law to administer such drug."

Manufacturers must include in the labeling of such drug: "Caution: Federal Law prohibits dispensing without prescription."

The purpose of this law is very understandably stated in the section quoted.

The law further states that such drugs shall only be dispensed: (1) upon the written prescription of a practitioner licensed by law to administer such drugs; (2) upon the oral prescription of such practitioner; or, (3) by refilling such written or oral prescription if such refilling is authorized by the prescriber either in the original prescription or by oral order.

The act of dispensing a drug that requires a prescription for dispensing will constitute an act which results in the drug being misbranded while held for sale. Pharmacists are experiencing a hostile reaction from some of their patrons when they inform them that the prescription they have been having refilled repeatedly can no longer be refilled without the prescriber's order. Reports are being received that when pharmacists contact physicians relative to again refilling a prescription, the physician often states: "I have not seen that patient for one to four years." In such cases the question can be asked:

"Is not such a person practicing self-medication, and possibly aggravating conditions, with a drug that is potentially dangerous?"

The Food and Drug Administration takes the attitude that a physician prescribes a drug for a definite physical condition at a particular time. The patient may diagnose what to him seems a similar condition at a period from one to four years after the drug was originally prescribed, and may be using such a drug with damaging effect.

Drugs that can be dispensed without a prescription but are often prescribed by physicians can be refilled without the prescriber's authorization.

There may be patients who are required to take a particular medication practically all their lives, but these are rather exceptional. The physician has several courses to follow in writing prescriptions. If he desires the patient to continue with the prescribed medication for a definite period, he can indicate on the original prescription to refill for the length of time considered advisable. If this course is not followed and the patient requests the refilling of the prescription, the only course left to the pharmacist is to obtain the prescriber's authorization.

Under regulations, the physician's nurse or secretary can orally convey the prescriber's order to refill a prescription, but under no circumstances can a patient convey the authorization.

There are records where a patient has obtained as many as 7,000 tablets by repeatedly having a prescription refilled that called for only 20 tablets, and investigation disclosed 20 and no more of the tablets were all the physician wanted the patient to have. Such disclosures usually come to light after a tragic experience.

Therefore, it is suggested that physicians include on their prescriptions directions not to refill (N.R.); to refill a definite number of times; or use the term P.R.N. If this term is used it should be emphasized as "Refill P.R.N." and not just "P.R.N.," because the administration holds that "P.R.N." is a term used in directions and does not apply to refilling the prescription where requested.

There is nothing in this act that in any way alters the provisions of the Harrison Narcotic Act.

NURSING SECTION

M. RUTH MOUBRAY, R.N., *Administrator*

Steering Committee, Joint Board of Directors of the Three Maryland State Nursing Organizations

WORKING CONFERENCES: ANALYSIS OF ACTIVITIES OF THE HEAD NURSE

Five two-and-one-half-day working conferences on an analysis of the activities of the head nurse have been cooperatively sponsored by the National Committee for the Improvement of Nursing Services, the American Hospital Association and the United States Public Health Service. The conferences were held in Cleveland, St. Louis, New Orleans and Salt Lake City in April, and in Washington, D. C. in May.

Since the head nurse is the key person in providing nursing care for the patient, she is considered of major importance in any program for the improvement of nursing services.

The method of analysis has been designed by the Division of Nursing Resources of the United States Public Health Service and the working conference instruction has been provided by the USPHS. Those eligible to attend were persons who will direct head nurse studies in their own hospitals, state hospital nursing consultants, and faculty members from universities conducting programs in nursing service administration. The last two categories must be willing to teach others the method of study taught at the conferences.

In the November 1951 issue of *Modern Hospital* an article by Ruth Gillan of the USPHS reported on an analysis of head nurse activities in one hospital. Since this article appeared, the NCINS has received inquiries from nursing service administrators interested in making similar analyses. It was at the request of the NCINS that the USPHS agreed to provide instruction for this series of working conferences.

Maryland nurses who attended the Washington Conference held May 5–6–7 are: Barbara S. Howell, Chairman, Joint Committee for the Improvement of Nursing Services of the Joint Board of Directors of the Three Maryland State Nursing Organizations; Marguerite E. Hydorn, Supervisor, University Hospital; Ruth Preston, Supervisor and Instructor Medical Nursing, The Johns Hopkins Hospital; Sarah I. Wharton, Assistant Director, Clinical Instructor, in charge of Out-Patient Department, Church Home and Hospital, and Miriam A. Moellman, Head Nurse, Church Home and Hospital.

On May 19 and 20 a two-day working conference on Head Nurse Study Methods was held at the Johns Hopkins Hospital under the auspices of the Joint Committee for the Improvement of Nursing Services of the Joint Board of Directors of the Three Maryland State Nursing Organizations. Participants in instruction for this conference were those Maryland nurses who attended the Washington Conference. Attendance at the conference in Baltimore was limited to persons chosen by directors of nurses to direct head nurse studies in their own hospitals. Those participating in the conference were pleased to see how well nurses who attended the Washington Conference were able to teach others.

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WAR MANPOWER COUNCIL URGES MILITARY DEFERMENT THROUGH ONE YEAR OF RESIDENCY

Capitol Clinic, A. M. A., Vol. 3, No. 15, April 15, 1952

The War Manpower Council, a citizens' organization financed by the Ford Foundation, has recommended that physicians be deferred from military service until completion of one year of residency training. The Council's report, *Student Deferment and National Policy*, lists this among its 14 recommendations made to Defense Department, Selective Service and other government agencies.

Currently, medical students are deferred through one year of internship, by which time they are subject to the Doctor-Draft law.

Letters to the Editor

Dr. Ralph W. Ballin, Captain in the Medical Corps, writes the following:

"I want to thank you very much for putting me on the mailing list of our new State Medical Journal. By now I have received two copies, and, being away from home, it is doubly satisfying to see all those familiar names and to be able to keep in touch with what is going on.

"The paper on the panel discussion on peptic ulcer was particularly enjoyable and it certainly proves that a medical journal can be written in such a fashion as to make it readable. I am sure that all of us can be proud of the new journal which is likely to take its place with the best of them."

* * *

Dr. W. W. Francis, the nephew of Sir William Osler and Librarian of the Osler Library, McGill University, Montreal, is a friend of Dr. Chatard's, and upon receipt of the first Maryland State Medical Journal, wrote a letter to Dr. Chatard. The following is quoted:

"That looks like an A-1 State Journal. Congratulations all round on it. Thanks for sending me No. 1. It has dignity and interest and should prosper, realize all your hopes for it, and Osler-wise rejuvenate the venerable, but evidently far from senile, Faculty.

"I'm glad to see that Aesculapius has revised Homer's spelling in the seal. That motto is one of the first and greatest compliments ever paid the profession, and deserved to be letter perfect.

"*Floreat Soc. Med. & Chirurg. Terrae Mariae.*"

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MARYLAND SOCIETY OF PATHOLOGISTS

CLINICAL PATHOLOGY IN MARYLAND

HENRY L. WOLLENWEBER, M.D.*

It has been called to our attention that physicians are not aware of the existing facilities for taking care of laboratory needs in their own communities. Free pathologic service has been rendered by the over-burdened State Department of Health and American Cancer Society to meet the apparent need in spite of the fact that care of indigent patients only was intended. Because of the lack of publicity, the Maryland Society of Pathologists was requested to submit a list of local pathologists available for cytologic, biopsy and other laboratory studies. These physicians have agreed to perform laboratory services in accordance with ethical standards of medical professions:

BALTIMORE CITY

H. Beisinger, M.D.	Woman's Hospital, Baltimore, Md.
F. H. Foucar, M.D.	Maryland General Hospital
W. C. Merkel, M.D.	Union Memorial Hospital
V. H. Norwood, M.D.	Church Home and Hospital
	St. Joseph's Hospital
D. L. Reimann, M.D.	University Hospital
C. W. Stewart, M.D.	6 East Read Street
J. A. Wagner, M.D.	Lutheran Hospital
	St. Agnes Hospital
T. A. Weinberg, M.D.	Sinai Hospital
H. L. Wollenweber, M.D.	225 Medical Arts Bldg.
R. B. Wright, M.D.	Franklin Square Hospital

* Executive Secretary, Maryland Society of Pathologists.

COUNTIES OF MARYLAND

Allegeny County	B. Skitarelic, M.D. Memorial Hospital, Cumberland, Md.
Anne Arundel County	George Carroll, M.D. Anne Arundel General Hospital Annapolis, Maryland
Baltimore County	See Baltimore City List
WEST	H. L. Wollenweber, M.D. Branch Laboratory Abbott Medical Center 4509 Liberty Heights Avenue Baltimore 7, Md.
EAST	H. L. Wollenweber, M.D. Branch Laboratory Rosedale Medical Group 8019 Philadelphia Road Baltimore 6, Md.
Calvert County	Cliff Berger, M.D. Sibley Memorial Hospital Washington, D. C.
Caroline County	K. E. McCullough Peninsula General Hospital Salisbury, Md.
Carroll County	Henry A. Stewart, M.D. Gettysburg Hospital Gettysburg, Pa. F. H. Foucar, M.D. Maryland General Hospital Baltimore, Md.
Cecil County	H. L. Wollenweber, M.D. Union Hospital Elkton, Md.
Charles County	H. H. Leffler, M.D. Providence Hospital Washington, D. C.
Dorchester County	K. E. McCullough, M.D. Peninsula General Hospital Salisbury, Md.
Frederick County	J. O. Collins, M.D. Frederick Hospital Frederick, Md.
Garrett County	B. Skitarelic, M.D. Memorial Hospital Cumberland, Md.
Harford County	H. L. Wollenweber, M.D. Harford Memorial Hospital Havre de Grace, Md.
Howard County	
UPPER	J. A. Wagner, M.D. St. Agnes Hospital Baltimore, Md.
LOWER	O. B. Hunter, M.D. Montgomery County Gen. Hosp. Sandy Spring, Md.
Kent County	K. E. McCullough, M.D. Peninsula General Hospital Salisbury, Md.
Montgomery County	J. E. Ash, M.D. Suburban Hospital Montgomery County, Md.
Prince Georges County	Wm. C. Manion, M.D. 5353 Quincy Place Bladensburg, Md.
St. Mary's County	H. H. Leffler, M.D. Jarwood Clinic Waldorf, Md.
Somerset County Talbott County Wicomico County Worcester County	K. E. McCullough, M.D. Peninsula General Hospital Salisbury, Md.
Washington County	Paul Butterfield, M.D. Washington County Hospital Hagerstown, Md.

Pathologists serving Maryland, whose names may have been inadvertently omitted from this list and who desire to be included, should contact the Maryland Society of Pathologists, 225 Medical Arts Bldg., Baltimore 1, Md.

SEMIANNUAL MEETING

Commander Hotel, Headquarters

Ocean City, Maryland

Friday, September 12, 1952

During the month of AUGUST the office and library will be open until 4 p.m. instead of 2 p.m. as has been our custom heretofore.